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# PENNSYLVANIA GAME NEWS

JANUARY, 1986

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This 216-page soft-cover book contains all of Ned Smith's "Gone for the Day" columns which appeared in **GAME NEWS** over a four-year period, including approximately 40 full-page wildlife illustrations and over 100 pen and ink sketches. Price, \$4 delivered.

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## COVER PAINTING BY BOB SOPCHICK

(Cover Story on page 2)

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# Country Lane Kestrel

*COUNTRY LANE KESTREL*, by Bob Sopchick, reproduced on our cover this month, will be the fourth limited edition fine art print available from the Pennsylvania Game Commission. As with the first three created by Ned Smith, all profits from its sales are earmarked for the Working Together for Wildlife Program. This program generates financial support for Pennsylvania's non-game wildlife, and is popular with both nonhunters and hunters.

Print sales from Ned's three paintings, *River Otters*, *Dutch Country Bluebirds* and *Big Woods Bobcat*, were vitally important to the WTFW program's beginning. Following Ned's untimely death, it was decided to hold a contest to select a painting of a kestrel, a subject chosen by the Information & Education Bureau, to continue the program. Twenty-five of Pennsylvania's top wildlife painters were asked to submit entries, and fourteen did so. A committee of I&E personnel chose the winner by ballot. It wasn't an easy choice, for there were a number of outstanding paintings among the entries, but the final vote went to Bob Sopchick.



Bob Sopchick

Bob's work is familiar to GAME NEWS readers. He has illustrated many stories for us and done a number of covers. A graduate of the York Academy of Arts, he is chairman of the communication arts department at the Pennsylvania School of the Arts in Lancaster County. He has more than 1500 published illustrations to his credit, he has participated in more than 40 exhibitions, and his work is in numerous public and private collections across the country.

Regarding *Country Lane Kestrel*, Bob wrote: "The kestrel is my favorite bird of prey. I knew it would be part of a winter setting. The decision was based on color. The tiercel has those terrific steel-blue wings and reddish hues in the tail, crown and back. That color contrast, along with the striking black and white markings of the head and breast, are the same colors we find in dried winter weeds, leaden clouds, and in the cold blue shadows of a brittle January landscape.

"I wanted to include as much deep space as possible. I wanted the viewer to sense that the bird could quickly take in the volumes of airspace above its winter hunting territory. . . .

"The composition is based on a series of repeating and interwoven curves. The curve of the falcon's breast is echoed in the branch he is perched on. The curve of the road is mirrored in the sky, and the curved lines of the cornfield are repeated in the gentle forms of the distant mountains. I wanted no one thing to be absolutely dominating. I wanted to capture the bare bones of Pennsylvania farmland in winter. I hope those who see *Country Lane Kestrel* sense the power of the bird, the quiet presence of the land in winter, and understand the relationship between the two."

We hope so, too.

The issue of *Country Lane Kestrel* will consist of 600 full color prints, signed and numbered. Image size is approximately 15 x 22½ inches, on acid-free 100 percent rag paper. Price, \$125 delivered. Add \$97.50 for framing. Orders are being accepted now at Game Commission headquarters in Harrisburg on a first-come, first-served basis. Spring delivery is expected. — Bob Bell





I TOOK ANOTHER half-step and a cockbird blasted out of a bushel-size hummock of grass like an Atlas rocket.

# The New Year Birds

By Paul R. Jukes

**I**T HAS BEEN said that if you do something you really enjoy on New Year's Day, you will enjoy it all year long. That's probably why I try to get in a bit of bird hunting on that day. For several reasons. Usually there's a bit of snow on the ground, so tracks show if there are birds in a particular area. And because of the holiday, it isn't difficult to find someone to accompany me afield. Furthermore, I just plain enjoy hunting, whether I'm alone or with somebody. So the after-Christmas pheasant season in the northern part of the state appeals to me.

A couple of seasons ago I made plans for my usual Day One excursion with more than ordinary excitement. I had spent the earlier opening days accompanied by my Brittany puppy, and we really enjoyed ourselves. We had taken a few pheasants, and also managed to find some apparently young

and foolish grouse, for several held to the pup's point and dropped at my shots, much to our surprise. Early woodcock flights helped whet the pup's scenting abilities, and I sharpened up his form on trapped barn pigeons which were released, unharmed, after his training sessions.

There was a bit of frozen snow on the ground that day, just about enough to show a pheasant track. After a brief ride I loosed pup from his travel cage for a short romp around the field, more to wear off his excess energy than anything. I tagged along, toting a little 28-gauge Model 1100 that had followed me home one rainy day. I couldn't bear to part with it, so I racked it along with the rest, intending to use it for trading stock. On a rather hasty impulse, I had bought a box of 7½s for it, rationalizing that it was senseless to have a shotgun in the house with no ammunition for it. I



**I HEADED FOR** the truck with two roosters in my game pocket, an itty-bitty shotgun under one arm, an itty-bitty puppy under the other. The whole day had been a surprise in more ways than one.

scooped a handful of the impotent-looking shells into my jacket pocket and took off down the field, trying to keep up with pup and his abundant energy. I really had little hope of finding much of anything, but rather than lug the heavy 12 or even the somewhat lighter 20, I had opted for the unused 28, just for the feeling of something different in my hands. We had been out for almost an hour when I thought that pup was acting rather strange, out there ahead of me. His stubby tail was buzzing and his ears were cocked ahead like he was trying to figure something out.

Now, at that time he was only about eight months old, so I really hadn't expected too much from him. When I got up alongside him, I was quite surprised to find a pheasant track in the snow, a rather fresh looking one at that. I dropped a shell into the 1100 and thumbed another of the little 28s into the magazine, forgetting for the moment that autoloaders hold three.

Too used to doubles and over-unders, I guess.

We continued through the field; I kept looking ahead for a bird running on the ground. We'd made a hundred yards or so when pup suddenly veered off course toward a bushel-size hummock of grass in the middle of the field. At the edge he froze solid, a perfect picture of a perfect pup on a perfect point. Carefully, I circled ahead to work toward the trapped bird. Closer . . . closer . . . By now I was almost bumping pup's nose, and still no bird.

"I guess you blew that one," I told pup. He held his ground, giving me a sidewise glare that clearly indicated he didn't appreciate my remark. I took another half-step, and a cockbird decided things were getting too close for comfort. He blasted out of that tuft like an Atlas rocket. I recovered from my astonishment just in time to get off a shot as he towered 20 yards from the gun. He made a soft whump as he hit the snow. The next instant pup was there, trying for all he was worth to get that huge bird into his mouth. I spared him the job, tucking the rooster into my pocket.

### Never Thought to Reload

We continued back across the field. As we were almost back to the truck, I never thought to reload. Fifty yards from the road, just as I was about to whistle pup in, leash him up and head for home, he decided to take another tour. I mouthed the whistle, then dropped it as I saw that telltale stub begin to buzz. But I felt certain there wasn't another bird in the whole field. Pup was probably at the place where the now dead bird had hidden during the morning.

I moseyed over to where the pup half crouched, almost hidden in the snow. "C'mon, let's head for home," I said.

I saw two things at the same time: a roostertail sticking out of the brush, and a doleful glaze in pup's eye that said, "Hey, Boss, if you'll please excuse



me, I think another one of those pretty birds is hiding right here under my nose." I was immediately aware of two facts; there really *was* a bird there, and I had neglected to shove another shell into the magazine after shooting the first time.

The rooster didn't wait for me to correct my errors. He buzzed out of there, squawking like a demented demon. The teeny-weenie 28 went "Pop" in the still, cold afternoon, and my second and final bird of the day crumpled in the air.

I headed for the truck with two

roosters in my game pocket, an itty-bitty shotgun under one arm, an itty-bitty puppy under the other. The whole day had been a surprise in more ways than one: a pup that worked like a champion and a shotgun that killed better than I ever dreamed it would. Would I enjoy days like that all year long I didn't know, but I doubted it. After all, too many surprises are hard on the nerves. Besides, I had to carry pup all the way back to the truck. After all, you didn't think I'd let him wallow through all that cold wet snow for nothing, did you?

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## *Books in Brief . . .*

**The Springfield 1903 Rifles**, by Lt. Col. William S. Brophy, USAR, Ret. Stackpole Books, P.O. Box 1831, Harrisburg, Pa. 17105, 616 pp., large format, \$55.95, delivered. The Springfield is one of the most famous military and sporting rifles of all time, renowned for its combat efficiency as well as its target range accuracy with the legendary 30-06 cartridge. This volume tells practically everything anyone will want to know about it. The book begins with the experimental models which preceded the '03, covers more variations than most riflemen have ever heard of—Air Service, Banner, Bushmaster, target rifles, drill and dummy rifles, commercial sporters, the Mark I used with the Pedersen device, the '03A3 and '03A4 of WWII days, National Match competitive rifles and NRA-NBA sporters, a periscope design, Winchester's "Sniper" Springfield. Even Teddy Roosevelt's famous sporter and the original 22 Hornet developed by Watkyns, Woody and Woodworth, largely on the M1922M1 22-cal. rimfire Springfield, are covered. Also detailed are numerous related subjects, including ammunition, bayonets, cleaning equipment, grenade launchers, silencers, scope sights, ordnance items . . . whatever. Countless photos, illustrations, shop drawings, and other valuable material. This is a tremendous work. It will be an invaluable reference for generations.

**The Waterfowl Art of Maynard Reece**, Harry N. Abrams, Inc., 100 5th Ave., NYC 10011, and Mill Pond Press, Inc., 204 S. Nassau St., Venice, Florida 33595; large format, 180 pp., heavy glossy paper, \$49.95. Maynard Reece has long been in the top rank of America's wildlife artists. He is the only artist ever to have received five Federal Duck Stamp awards. Though he paints all aspects of wildlife, this beautiful volume is devoted to North American ducks, geese, swans and marsh birds. Reece wrote the text, and it is excellent, but it is the artwork—there are 93 full color paintings, plus 14 pencil drawings and seven stone lithographs—which are this book's reason for existence. They are magnificent. As Roger Tory Peterson writes in the introduction: "This handsome book, a celebration of the art of Maynard Reece, is a delight to the eye and will make us all more sensitive to the pageantry of waterfowl."

**Guns Illustrated**, 18th ed., edited by Harold Murtz, DBI Books, 4092 Commercial Ave., Northbrook, Ill. 60062, 320 pp., softbound, \$13.95. The first third of this book is made up of articles, the remainder is excellent catalog material on guns, scopes, etc. Up front, Clay Harvey covers the new 32 Magnum in Harrington & Richardson and Ruger revolvers, and in another piece discusses accuracy in snub-nose handguns. Peter Briggs tells how sub-caliber ammo can make a 57mm recoilless rifle and similar combinations big bore fun, Don Simmons discusses S&W's 9mm auto pistols, and Bob Bell covers the unusual Shepherd scope. Lots more, too.





M. Watson



# RESOLVED . . .

**L**AUREL MOUNTAIN meteorologists eliminated the word “flurries” from their vocabularies when they realized there is no in-between up in these parts when it comes to snow: it either blankets us in layers which pile, one upon another, until it smothers the porch steps and pushes up against the first floor windows, or it doesn’t fall at all, permitting a sky show which can be as vast and brilliant as a sea of polished crystal.

From November through April, snow is the rule in the area, which is why the proprietors of local ski resorts smile on their way to the bank and why I head up to my own cabin in Somerset County each New Year’s Eve to hole up alone, bound by snow and distance, to celebrate the turning of the calendar.

When it’s time to announce the new year’s arrival, no bell’s toll nor chime’s tinkle can compare to the sound of frozen rhododendron leaves rustling in the wind, or to the roar of the swollen ice-laced stream which pours over the dam and rushes past the back steps of my tiny stone cottage.

It is nearly midnight when I sit down with pen and journal in front of the fire. Flamelight flickers and dances across the knotty pine walls and ceiling, while the aroma of burning cherry and apple wood saturates the room with memories of ripe October days.

New Year’s Eve, late, alone in a flickering one-room cabin with the shadows of the dying year and the echoes of the spent season’s shots, is the time for an outdoorsman to deal with the realities of his world, to log the disappointments and triumphs he has experienced, and then to replace their memories with new dreams.

I’m selfish about it. Like a lean fox which stumbles upon an unexpected

kill late in winter, I guard my New Year’s Eve solitude against intrusions. I need the time alone. Without it, I would face the upcoming year like a pilgrim in a winter storm, lost without a path to lead him through the snow. Wishing for more than mere survival upon this earth, my actions afield in the coming months will be based largely upon the scheme which I formulate and the resolutions which I write in the fading hours of the old year and the dawning moments of the new.

I resolve then, first of all, to set aside time for a few more upstream casts and a few more quiet steps taken into the wind. Outdoor moments are precious to a fellow who doesn’t own quite enough of them to see all that he wants to see and to get done what he needs to do. Roads not traveled, streams untouched by my line, woodlots unblemished by the tracks of my boots—these are the results of a lifestyle which begs to be free but allows itself to be trapped behind the walls of the mundane. I resolve now, at the front end of the new year, to change that, to befriend time rather than to begrudge it. Four seasons sit waiting to be explored, each one but a moment ahead of the next.

## Visit, Sleep, Listen

I resolve to visit the land, to sleep on it, to listen to it when no one else is listening—in the winter, in the snow, after the hunters have gone and the world is calm again. I won’t carry my gear into the quiet, snowbound woods without a destination or purpose, though. I hunt deer on a ridge high above the Clarion River in Jefferson County. I’ll hike up there, maybe in January or perhaps in February when winter has really settled in, to answer a question which has teased me for as



**BEFORE I HAD** time to blink the first wave of punkies from my eyes, a red fox leaped from the bank and headed up the center of the overgrown logging road.

long as I've been leaning back against the old split oak on opening day.

I've often wondered if late on a moonlit winter night, when the wind is down and the echoes of high-powered rifles have faded away with the deer season, I've wondered if a person who listened alone in the frozen woods could perceive the notes of the same "distant clarion" as the two surveyors who were camped at streamside in 1817 did. From their description of the gurgling stream, the river, the town, and the county received their names.

It's an insignificant question perhaps, born merely from idle moments accumulated over a few seasons passed on the same deer stand; but it's one of several winter secrets which I resolve to uncover while camping above the river on some snowy weekend.

With its motherly currents and postcard scenery, the Clarion is about as affectionate a body of water as Pennsylvania has to offer, a nice stream for a quiet getaway or a family vacation.

But when spring tumbles in this

year, I resolve to test my 15-foot Old Town canoe in a stretch of water which is a bit more ornery.

For several years, I've watched helmeted paddlers launch their crafts at the foot of my steps on Laurel Hill Creek, seen the canoes and kayaks weave between the rocks and bob their way downstream until being swept around the bend. I've yearned to join the fun, itching to wipe the spray from my face as I challenge the rapids which punctuate the twelve-mile downhill run to Confluence.

This March or April, when the water's still high and the air still carries a nip, I'm going to do it—lessons, wetsuit, floatation bags notwithstanding.

Later, after I've survived and mastered this stretch of whitewater, I'll graduate to McConnells Mill on Slippery Rock Creek. It will be mid-May by then, but the current always races in this stream. Then, in the afternoon, after a good morning run, I'll fish for trout or just sit on the bank and watch the laurel bloom.

There will be little time, however, to relax and watch the flowers once summer arrives, for I resolve to begin this year to carve from the forest the best deer camp this side of the New York line. The land has been waiting for me in the hills above Clear Creek State Park, maturing a bit these past five years while I paid the bank its dues. But early in June it will become my land; and with the first eut made upon the first tree to be felled, a dream will begin to materialize amidst the chainsaw's roar and a shower of wood chips.

### Beyond Electricity

We'll build the camp back near the boundary line, beyond the reach of a spotlight's beam and the conversation of those who walk the township road . . . beyond the reach of the telephone, electricity, and two-wheel-drive vehicles.

Oh, but it will be a cozy hideaway, erected on the tip of a ridge which hangs over a valley full of rhododen-



dron and mountain laurel, a tangled basin through which deer sneak in the early morning and late evening. At night, we'll relax around a wood fire in a room glowing in the soft light of oil lamps rescued from a dozen flea markets.

It will take time to fashion the dream into reality, to create a spot where my son can someday retreat from the mechanized world into one where warmth, companionship, and tradition are valued and preserved, into an atmosphere in which the quality of life and the mysteries of death are all that count.

Later in the summer, just before the cool nights begin to trigger dreams of large-racked bucks and long-tailed roosters, I resolve to step back from the present for a replay of two experiences which still light my memory like candles in the night: one when I was thirteen and itching to dispatch my first game with my brand-new, single-shot 16 gauge; and another which happened on a heavy August evening several years ago when the air fairly dripped with moisture and the sky bristled with electricity.

When a thirteen-year-old tears the wrappings from a long tan package and discovers a spanking new shotgun, the thrill ranks somewhere between the testing of his first two-wheel bike and the birth of his baby brother. Inhabiting the same house with an untested firearm for the three *long* months before Pennsylvania's dove season opens is downright unnerving for the boy — and for his parents, who must withstand his pleas to put the gun into action.

By midsummer of that year — which happened to be 1960 — Mom and Dad surrendered and allowed me to sneak out to Uncle Ed's farm with an Olt predator call in one hand and the new shotgun in the other, to try for a fox which had been committing havoc upon the family chickens.

The sun hadn't dipped below the horizon that evening when the first shrill squeal of a tortured rabbit

pierced the air. Before I had time to blink the first wave of punkies from my eyes, a red fox leaped from the bank and headed up the center of the overgrown logging road which I was watching. Enough sunlight filtered through the trees to backlight the approaching animal, creating a sparkling target for my new gun.

I don't know what went wrong, but with the 16 gauge's roar, the animal did a mid-stride backflip, reversed its direction, and darted back up the brushy hillside.

That was the last fox I've attempted to bring to a call, but the memory of the animal shimmering in the rays of the setting sun still lingers.

### Try Again

This summer, I resolve to try again to call a fox, to watch him approach along that same overgrown trail until he's just close enough . . .

Then I'll snap his picture, backlit and shining, through my new 400mm lens, freshly unwrapped from its small tan box.

Erwin Bauer would be proud.

Before summer surrenders to autumn's bidding, however, there's another moment which I resolve to recapture, a drama enacted several years ago just before a late-evening thunderstorm tumbled down over a lone fisherman of Laurel Hill Creek.

I *knew* that the stream was fished out — had been since soon after the last stocking. But this pool *felt* as if a trout might still linger in its shadows. I cast into it to see if my instincts were right. Once . . . twice . . . three times I dropped the fly upstream and watched it float unmolested down through the ripples.

The mountain rumbled and seemed to shake as night approached and mixed with the storm clouds massing to ride the wind's currents down through the valley.

A final cast . . . a strike . . . a 12-inch rainbow netted with more satisfaction than with any number of larger trout taken earlier in the season.



**IT IS NEARLY** midnight when I sit down with pen and journal in front of the fire. . . . The list of resolutions fades into the flickering hours of the early morning, the first children of the New Year.

I resolve to test my instincts again this year, to try to locate another guest of summer who should be long gone, offer him my fly, take him moments before the storm breaks and the season ends.

Sitting here, as alone in my thoughts as in my snowbound New Year's hideaway, still a full eight months ahead of Pennsylvania's gunning season, I'm inclined to lean back in the chair, close my eyes, absorb the fire's warmth, and entertain November dreams of 10-point bucks and cloverfields overrun by bunnies. A resolution to pursue the game full steam ahead in the coming season would be a natural outgrowth of such tantalizing thoughts.

But this autumn, from the moment I lift my shotgun down from the rack, I resolve to savor the quality of each

hunting experience, rather than measure success by the quantity of game taken.

The *boys* will make the difference.

They aren't mine — only two fifteen-year-olds on loan for a few weekends during hunting season. Last year, I introduced them to the sport, gently at first, during archery season. Taking them along with me on occasion, we spent several Saturdays chasing white-tails across Jefferson County ridges and rabbits in and out of Washington County brushpiles.

### Choicest Moments

Still, I saved the choicest moments of the season for myself: a dozen or so October evenings in my treestand waiting for a buck to wander into the orchard . . . days hunting rabbits behind Mook's beagle, Sam, on Thanksgiving morning . . . the opening day of buck season in Cook Forest.

The boys need more, though. Additional time in the woods to discover the subtleties of life there and to learn what their roles should be in the cycle of living and dying.

With an opportunity to help mold Mark and David into responsible hunters and caring outdoorsmen, now is the time to follow in the footsteps of Uncle Walt, who many years ago agreed to take *me* along, surrendering his chance to bag more game in favor of the opportunity to witness the sparkle in my eyes when I rolled my first Butler County bunny.

So it seems that the cycle will be completed this autumn, for the resolutions which I formulate before the fire this New Year's Eve — resolutions at first intended to shape meaningful outdoor experiences for myself — will ultimately be shaped by the two young hunters who will accompany me afield.

This is as it should be.

The list of resolutions fades into the flickering hours of the early morning, the first children of the New Year . . .



# Pennsylvania Game Commission

## Annual Report

### July 1, 1984–June 30, 1985

#### EXECUTIVE OFFICE

**Peter S. Duncan**  
Executive Director

Following several months of discussion and deliberation, the General Assembly, in June, passed and sent to the Governor compromise legislation authorizing approximately \$8.5 million in new license revenues. The Pennsylvania Federation of Sportsmen's Clubs, through its leadership and grass roots membership, helped ensure passage of this important legislation at a time when it appeared the bill was lost, and the agency would have been forced to survive another year with only marginal reserves.

The compromise legislation, referenced as Act 42, provides 57 percent of our original request. We have sufficient new monies to finance the class of wildlife conservation officers now in training at Brockway, and to purchase additional electronic data processing equipment that will greatly enhance our ability to store, retrieve, and analyze data essential to our wildlife management programs.

We can now guarantee existing levels of service for several more years, but Act 42 does not provide monies for landowner incentives and long-range planning. We cannot purchase new conservation easements on private agricultural lands, cut an additional 1200 acres of border around agricultural fields, pay landowners to delay haymowing, and distribute an additional 350,000 pounds of free seed mixture. We cannot undertake any of the new habitat improvement initiatives mentioned in our original proposal.

Back in 1973, when the legislature last approved resident hunting license fees, we were cautioned to "make it last." We made it last twelve years, because the 1973 increase was

large enough to provide substantial reserves. We invested our reserves wisely, and we didn't have to tap it for day-to-day operations until 1982.

But legislative philosophy has changed during the past decade. Considering the prevailing attitude of the General Assembly, we cannot look upon our recent revenue gains as "half a pie." In essence, we have done rather well. Legislators have said simply, "When you feel you can justify further increases, come back and we'll talk about it."

I want to thank every sportsman for his efforts on behalf of Pennsylvania's wildlife management program—for support of the license increase proposal and, more specifically, for getting involved when the chips were down. Let's now put all of this behind us and look to the future.

#### COMPTROLLER'S OFFICE

**Ross E. Starnier, Comptroller**

This office is responsible to the Deputy Secretary of Comptroller Operations, Office of the Budget, and adheres to the directives and procedures established by them. It maintains through its normal day-to-day operations the overall responsibilities and functions of receipt and disbursement of funds, and offers financial guidance to the Commission for management,

**UNDERCOVER** investigations into black market wildlife operations came to a climax in January 1985 when charges were filed against 135 persons involved in illegal commercialization of fish and wildlife.



information, and budgetary purposes. The accounting records of the Game Commission are subject to annual audit by the Auditor General.

The Comptroller's Office proposed the establishment of a local bank depository for hunting license revenue, which was implemented prior to last year's peak collection period. During the 1984-85 fiscal year, this procedure generated approximately \$10,000 in interest earnings by expediting and simplifying the transfer of these funds to the state treasury. With the increase in license revenue, this implementation will produce substantially more interest earnings the next fiscal year.

Recent changes in purchasing regulations enabled the Commission to secure and award bids locally for all commodities up to \$5000 without prior approval from the Department of General Services. Purchasing limits were \$1500 at the local level prior to this change.

This office continued in the effort for ultimate conversion of the Commonwealth's present Centralized Accounting System (CAS) to the new Integrated Central System (ICS) which went into effect July 1, 1985. This new system has the capabilities of interfacing various assemblies such as accounting, payroll, purchasing budget, etc., as well as providing additional reporting for project and Federal grant accounting through aggregation of costs for various purposes. Comptroller office personnel spent numerous hours training agency personnel for document coding, altering accounting forms, "crosswalking" account codes, and reviewing and readying invoices for prompt payment at the conversion date.

## BUREAU OF ADMINISTRATIVE SERVICES

Kenneth L. Hess, Director

The bureau encompasses the Personnel, Hunting License, Procurement, Office Services, Labor Relations, and Training Divisions, plus the Ross Leffler School of Conservation.

### Field Administration

Primary administrative policy lies with Harrisburg; however, administration is delegated to the six regional field offices to ensure uniform implementation of Commonwealth and Commission policies and directives.

### Personnel Division

The Personnel Division centrally develops, coordinates and directs all statewide personnel management programs and activities in the following major areas: workforce analysis and planning; recruitment, selection and placement; classification and pay; performance evaluation, benefits and services; personnel transactions; leave administration and records, and employe career development. This office provides appropriate training in these areas for all units located centrally and throughout field operations. All of this must be developed and

coordinated in total accord with agency policy, civil service law, Commonwealth personnel rules and collective bargaining agreements.

Current operations involve approximately 680 permanent and 60 seasonal employees in 125 different position classifications. Of this number, approximately 110 are located in Harrisburg headquarters and the remainder are situated at various field locations and operations in all 67 counties.

A formal comprehensive Affirmative Action Program exists to ensure equal opportunity for all employees and applicants by developing, implementing, reviewing and coordinating equal employment opportunity regulations.

The Personnel Division continues to review complement to determine manpower needs, and fills only those positions absolutely necessary to the operations of the agency.

### Hunting License Division

This division appoints and supervises approximately 1075 issuing agents comprising county treasurers and private businesses. Monthly reports are received and audited, with revenue deposited into the Game Fund by way of the state treasurer. The Hunting License Division makes sure agents remit funds due on a monthly basis and that licenses allotted to them do not exceed the amount of bond security. Antlerless deer licenses are issued only by county treasurers.

Our Harrisburg License Unit issues licenses by mail and over the counter. Many nonresidents take advantage of this service, as do an increasing number of residents.

Nine issuing agents at key locations in Ohio, New Jersey and Maryland have been appointed and continue as a service and convenience to our nonresident hunters.

Most categories of licenses sold for the 1984-85 hunting license year indicate a slight decline from the previous year. Approximately 1,683,332 of all types of licenses (except antlerless deer) were sold during the past license year (September 1, 1984 to August 31, 1985), returning \$15,149,638 to the Game Fund.

	1984-85*
Adult Resident	943,101
Junior Resident	137,411
Senior Resident	68,834
Nonresident	70,756
Archery	274,994
Muzzleloader	86,319
Antlerless Deer	470,006
Three Day (Regulated Shooting Grounds)	1,942
Resident Bear	98,621
Nonresident Bear	1,354

\* Sales through August 31, 1985

### Procurement Division

The Procurement Division is responsible for buying all commodities and equipment exceeding \$5000, plus all gasoline and fuel oils for six



regions, the five game farms, research projects, Ross Leffler School of Conservation, Howard Nursery, the wildlife management areas, and all other installations. All advance account purchases for the Bureau of Administrative Services are processed through this office. Also, all printing and office supplies are ordered by the division from the Department of General Services Warehouse. Records of all purchases are kept. This division also writes specifications and justifications, reviews bid proposals, furnishes Commonwealth contracts to Commission personnel, and is the liaison with the Department of General Services.

### Office Services Division

This division is responsible for the ordering, stocking and distribution of all clerical materials, paper supplies and Commonwealth forms used by Harrisburg office, six regional offices, five game farms, Howard Nursery and the Ross Leffler School of Conservation. All Harrisburg duplicating requests are processed through this office and statistics for the annual updating of the Data Book are compiled here. All incoming mail is sorted and distributed by this division. The processing of all outgoing mail to Division Offices, Game Commission field personnel, news media, sportsmen's clubs and the general public, as well as the maintaining of the mailing lists, is handled here. Messenger service and warehouse storage are maintained by this division.

### Labor Relations Division

Labor relations responsibilities are comprehensive, involving a master contract, a master memorandum, and approximately 11 different employe unit agreements, negotiations, labor/management meetings, management training, handling of grievances, and arbitration.

In-service and out-service training are provided for permanent employes through college and university courses related to job responsibilities, along with internal workshops and seminars. In the past year, approximately 43 employes participated in 15 different out-service training courses, 25 Game Conservation Officer Trainees participated in two different courses, and 17 employes participated in seven different courses presented by the Office of Administration. Our in-service central office training/orientation program was presented to four field employes.

The in-service first aid training program has provided 228 employes with cardio-pulmonary resuscitation (CPR) training, and 134 employes with multi-media first aid training.

### Game Commission Training School

This facility has been used since 1936 by the Game Commission to train new employes prior to assignment to vacant field positions. To date, eighteen classes have been graduated, for a total of 402 conservation officer graduates. Currently, the 19th Class of Game Conservation Officer Trainees is undergoing training at our



**THE 19th Class of Game Conservation Officer Trainees began training in June 1985, at the agency's Ross Leffler School of Conservation. Since 1936, 402 officers have been graduated from this school.**

school. This class, comprised of 24 men and one woman, began training in June 1985, and will be graduated in February 1986. The game conservation officer training program is composed of classroom instruction augmented by on-the-job training with selected field officers. In-service training workshops are conducted at the school for Pennsylvania Game Commission employes and other conservation associations.

## BUREAU OF GAME MANAGEMENT

Dale E. Sheffer, Director

The Bureau of Game Management has two divisions employing approximately 75 full and part-time personnel. There are 13 wildlife biologists and six wildlife technicians within the Division of Research. Within the Division of Propagation, five game farms are engaged in the rearing of ring-necked pheasants.

The Research Division is involved with 66 wildlife studies, surveys and inventories, the results of which produce management recommendations. Wildlife research is overseen by a field coordinator. Research on the following are underway:

- White-tailed Deer
- Black Bear
- Ruffed Grouse
- Fox Squirrel
- Wild Turkey
- Cottontail Rabbit
- Ring-necked Pheasant
- Snowshoe Hare
- Waterfowl
- Osprey
- Small Game Harvests
- Bald Eagle
- Nongame
- Furbearing Mammals
- Bobcat
- Indiana Bat
- River Otter
- Hungarian Partridge



**JACK GILBERT**, southeast region wildlife technician, determines the age of a whitetail by examining tooth wear on the lower jaw. Over 30,000 deer are checked annually as part of the agency's deer management program.

Study objectives and procedures are prepared by the wildlife biologists for review and approval by the bureau director. Annual progress and final reports are also subject to approval prior to dissemination to other scientists and the general public.

Production of ring-necked pheasants at the five game farms is supervised by a field coordinator. He also handles the distribution of the pheasants throughout the Commonwealth. In addition, he is responsible for budget preparation and bulk purchases for each farm.

In 1984, 227,930 ring-necked pheasants were raised and released. The following surplus items were made available to sportsmen and commercial game bird propagators:

52,125 fertile eggs at 20 cents each  
 25,900 day old chicks at 31 cents each  
 6,805 day old chicks were given to sportsmen

The Research and Propagation coordinators assist with the administrative duties in the Harrisburg headquarters office. These duties annually involve nearly 5000 written and telephone inquiries concerning wildlife research and management. Approximately 100,000 forms are prepared, distributed, received and compiled each year. Wildlife and harvest management recommendations are made annually to the Game Commission.

## BUREAU OF INFORMATION AND EDUCATION

**Lantz A. Hoffman, Director**

Viewed by the Bureau of Information and Education, fiscal 1984-85 was a mixture of success and frustration. We accomplished our program objectives and were pleased with response to the Deer Management Educational Effort. We witnessed the second highest buck harvest; another record bear season; excellent turkey hunting; and saw the first of a new generation of "hardy" ringnecks raised and released from the Northcentral Game Farm. We were privileged to be part of the largest under-

cover wildlife investigation ever conducted in the United States, by planning and executing state and national coverage of that event. It was a good year, yet some of the rhetoric and happenings incidental to the license increase efforts tested our patience and resources.

Animal rights groups were coming out of the walls with another "ban the trap" campaign. Organized sportsmen fought among themselves. And the Game Commission was figuratively drawn and quartered for curtailed pheasant production, too few deer in the northern tier counties, too many deer on agricultural lands and urban properties, not enough rabbits, constructing a new headquarters building, moving the training school, etc., ad infinitum.

We knew that, even after 12 years, getting a license increase wouldn't be easy. Attempts to resolve differences between the Commission and dissidents were met with frustration. We cautioned that the only beneficiaries of the battle between sportsmen were animal rights groups who delight in seeing hunters and trappers and resource agencies fighting among themselves.

In the meantime, House Game and Fisheries gave approval, and we received approximately half of what we requested. We had hoped for enough to last five years, but legislators opted to keep state agencies on a short rope, and we've been told to come back to the Legislature when we can justify additional license increases.

In the end, it took six months to win legislative approval, and we received approximately half of what we requested. We had hoped for enough to last five years, but legislators opted to keep state agencies on a short rope, and we've been told to come back to the Legislature when we can justify additional license increases.

For most of us, the struggle to win legislative support has been both traumatic and rewarding. Traumatic for the reasons already stated, rewarding in the sense that we have learned a lot about ourselves and how we are perceived by various constituents. While it's true there is a great deal of difference between perception and reality, it is likewise true that, in some quarters perception *is* reality and our image is tarnished.

It can be said the success of any agency depends on its public and political image. The Pennsylvania Game Commission's achievements in the field of scientific wildlife management are not at issue. The challenge lies in our ability to become more proficient at communicating our programs to sportsmen, allied conservation groups, and members of the General Assembly.



In the future, our image and public recognition will depend upon the quality of our management objectives and the extent to which those objectives are achieved. It will also depend on our willingness to benefit from valuable input from sportsmen, environmentalists, and other constituent users of wildlife.

Conflicts facing the Pennsylvania Game Commission are not unique. Conflict is universal among resource agencies trying to achieve balance between the needs of wildlife and the needs of people. Those who fail in natural resource professions generally do not fail because of a lack of knowledge or an inability to manage wildlife. Most resource agency problems are public relations failures—the inability or lack of desire to get along with people.

Those of us responsible for communications and public relations fully realize that today, more than at any time in history, people are led by their own consent and their own opinions. People are not only better educated now, but they also are better informed. They demand to be counted before government adopts or promulgates rules and regulations which impact on them directly. This is especially evident when government attempts to regulate precious commodities such as outdoor recreational activity and natural resources.

With less and less of those natural resources for more and more people, with people having more time for leisure, and better modes of travel and more money to spend on outdoor recreation, the need for good public relations and good communications is going to increase.

Therefore, those of us who manage and oversee wildlife resources must make every effort to get our knowledge of people to the same level as our knowledge of resource management itself. History, we hope, will record that we accepted the challenge and were up to the task.

### **Hunter-Trapper Education**

The Bureau of Information and Education has recommended combining the hunter and trapper education programs, and requiring all first-time hunters and trappers to undergo the same 10-hour course. The comprehensive program will include safety; nomenclature of firearms, archery, and trapping equipment; hunter and trapper ethics; landowner relations; fundamental wildlife management concepts; basic survival skills; wildlife laws, rules and regulations; and, when practical, hands-on experience with various types of sporting equipment. Requiring all first-time sportsmen to undergo the same training program should ultimately result in greater cooperation and understanding between competing interests. Hunters will better understand the problems confronting

trappers, and trappers can have a greater appreciation of problems confronting hunters.

Three hunter education camps were conducted in the Northeast Region. The courses were well attended and—with a year's experience under our belt—ran rather smoothly. The Northeast Region supervised construction of a mobile claybird trap that will be used throughout the region to teach shooting skills to both young and experienced hunters. Most materials used in construction were donated. The trap was loaned to the Boy Scouts for use at their 1985 National Jamboree in Virginia.

In the future, as a matter of priority, the Commission will place greater emphasis on hunter-trapper education, conservation education, public information, and in solving conflicts between the agency and its major constituencies.

### **Master Instructors**

A pilot using selected "master" hunter education instructors is underway in the Southeast Region. Master instructors will be responsible for coordination of course programs, distribution of hunter-trapper education materials, and instructor training. Actual administration of the hunter-trapper education program remains with the district game protector. If the pilot project proves successful, it will be implemented statewide.

### **Steel Shot Clinic**

In May, 35 Commission personnel participated in a two-day steel shot seminar and shooting clinic conducted in Harrisburg by the National Wildlife Federation. Additional personnel will be trained and they in turn will share that experience with sportsmen throughout the state. The agency is going to become more actively involved in demonstrating the effective and efficient use of non-toxic shot.

### **Working Together for Wildlife**

The loss of Ned Smith will have a significant impact on the Game Commission's Working Together for Wildlife fine art series. Ned's prints were in great demand and were a tremendous asset to our nongame wildlife program. The Commission, upon deciding to continue the series, invited recognized wildlife artists from

**DEPUTY Game Protector Larry Mummert, Harrisburg, also is one of the agency's 3500 volunteer hunter education instructors. These dedicated individuals teach nearly 50,000 new hunters a year.**





Pennsylvania to submit paintings of the 1986 WTFW species, the American kestrel. From these a winning design was selected. It is featured on this month's GAME NEWS cover and will soon be available to fine art print and wildlife enthusiasts.

### Planting for Wildlife

As in past years, nearly 20,000 packets containing 15 tree and shrub seedlings were made available to the public through the Planting for Wildlife Program. Some new species will be available this year, and some of the marketing locations will be changed.

### Waterfowl Management Stamp and Print Program

The Commission's voluntary waterfowl management stamp and print program, initiated in 1983, has thus far produced over \$350,000. These monies have been used to purchase wetlands, improve waterfowl habitat, and conduct waterfowl education programs. Waterfowl hunters are encouraged to support this program. Less than 5000 of the 1984 Pennsylvania "duck" stamps have been sold, and many of these undoubtedly were purchased by stamp collectors. With over 60,000 federal duck stamps sold annually in Pennsylvania, it's readily apparent that hunter support for this voluntary stamp has been minimal.

### Project WILD

More and more elementary and secondary teachers continue to be trained to teach Project WILD courses in their classrooms. Although the program is under attack from several animal rights groups, Project WILD has been endorsed by the Department of Education and has been well received in most areas of the state. At the moment, over 2000 educators in the commonwealth have participated in Project WILD workshops, which are offered by volunteer facilitators enlisted by the Game Commission to assist with this program. Attesting to the value of Project WILD and the dedication of these facilitators is the fact that over 80 percent of the participants have indicated the work-

POSSIBLY the greatest challenge facing natural resource managers is satisfying the public's information needs. The Game Commission employs every available communication technique, from modern mass media productions to small group interactions, to reach the widest audience possible.



shops are the best training sessions they've ever attended.

### GAME NEWS and Paid Publications Division

GAME NEWS continues to be the primary voice of the agency and the most widely read outdoor publication in the state. Circulation over the past year has averaged 174,070. Although most of these go to Pennsylvania residents, nearly 25,000 are mailed to subscribers in every other state and several foreign countries.

A questionnaire survey run in the January 1985 issue was a resounding success. Approximately 20,000 subscribers responded. Results of this survey were tabulated by the circulation staff, and a report summarizing the results was published in the October 1985 issue.

Several features have been added to the GAME NEWS over the past year. Linda Steiner, in her "Another View" column, offers a woman's look at our outdoors and what they have to offer recreationists.

Joe Kosack has provided several articles on trapping, in an effort to help both beginning and experienced furtakers. Because of the negative publicity trapping has been receiving, there's a need to explain this activity in a factual manner. Joe has done an outstanding job in responding to this need.

To help readers get more from their harvests, "GAMEcooking Tips" by Carol Vance Wary has been added. Each month Carol supplies a tasty recipe based on game available to Pennsylvania's hunters.

Finally, "GUNnews for Shooters" has been added to help keep sportsmen abreast of new developments in the firearms industry.

Two of our recent books continue to attract readers. *Birds of Pennsylvania: Natural History and Conservation*, by James and Lillian Wake-



ley, has proven to be a most popular book. The 10,000 copies originally published sold out in only nine months. During this past fiscal year a second edition was produced and is also selling well.

Chuck Fergus selected 33 of his outstanding Thornapples essays and we have published them in a high quality hardcover book entitled *The Wingless Crow*. It, too, is selling well and bringing pleasure to many readers.

## **BUREAU OF LAND MANAGEMENT**

**Jacob I. Sitlinger, Director**

Despite budgetary constraints, this year was marked by progress and accomplishments within the Bureau of Land Management.

For the third consecutive year we were able to capture 12 bald eagle chicks in Saskatchewan and bring them back to Pennsylvania where they were successfully hacked into the wild. Hacking, briefly, involves raising young birds through the fledgling stage without having them become accustomed to man. It's hoped these birds return to our state to nest when they reach adulthood, at age four or five years. Thirty-six young eagles have been raised and released so far, and we're extremely optimistic that some of these birds will soon be found nesting in the Keystone state.

During the spring and summer of 1985, 56 special rabbit management areas, two in each of the 28 Land Management units, were established on State Game Lands. An additional rabbit management area will be established in Lackawanna County, on a tract the agency is in the process of purchasing.

In management of these areas, the most important aspect is to have good food in proximity to good cover for each season of the year. The minimum management unit required for cottontails is about five acres. Each land manager has been given detailed guidelines containing the most up-to-date information on rabbit habitat management, and directions on how these sites are to be established and maintained. These will serve as demonstration areas to be viewed by sportsmen's clubs and other landowners who want to develop similar rabbit management areas on their own land.

The Bureau of Land Management is firmly committed to keeping its staff fully informed and updated on wildlife habitat management issues, programs and procedures. Many of the staff attend conferences, symposia and workshops to stay abreast of current issues and techniques. Additionally, every other year the Bureau organizes a major statewide conference to inform its personnel of current issues and concerns, policy and procedure changes, and updated habitat techniques.

In February 1985, the bureau held a statewide conference for Land Management personnel. The major theme was the management

and protection of Pennsylvania's wetland habitat. Related topics included Department of Environmental Resources, Pennsylvania Fish Commission, and other state agency habitat protection programs, Pennsylvania's Species of Special Concern and their protection and management on State Game Lands, and the Pennsylvania Breeding Bird Atlas Project.

Early in the spring of 1985, the Commission purchased an aquatic weed and channel cutter, commonly referred to as a "cookie cutter." This device consists of two large circular blades mounted on the front of an aluminum boat. It is used to cut channels through cattail and alder marshes. In areas where the vegetation has taken over, the cookie cutter can effectively and inexpensively create open water and improve edge in these marshes, creating additional nesting habitat. The machine was purchased with monies from the Pennsylvania Waterfowl Management Stamp and Print program and the Matching Aid to Restore States Habitat program (MARSH) sponsored by Ducks Unlimited, Inc.

As an update of statistical information, the Bureau of Land Management is responsible for the development and maintenance of 275 separate Game Lands. These lands total 1,293,413 acres, and at least one exists in all but two of the state's 67 counties. A total of 26,000 acres of federal, state, municipal and private lands also is managed for wildlife by the Game Commission. Furthermore, there are 2,371,600 acres in the Farm Game Program; 630,507 acres in the Forest Game Program, and 1,495,804 acres in the Safety Zone Program. All are managed to one extent or another for the enhancement of wildlife as well as outdoor activities such as hunting, hiking, outdoor photography and bird watching.

### **Engineering and Contract Management Division**

This division has the primary responsibility of planning, designing, specifying, contracting for, and inspecting all contracted maintenance work and new construction. In addition, the division provides technical assistance on problems involving general engineering and prepares feasibility reports and cost estimates for a variety of proposed projects.

This past fiscal year, four repair, maintenance, and building addition contracts were awarded for projects designed to preserve or enhance structures on Game Lands.

Nine dams were visually inspected and formal reports prepared for submission to the Department of Environmental Resources.

Planning, coordination, review of plans and document preparation continued through the year in our effort to realize the submission of the finalized plans and specifications for the new Harrisburg Headquarters office, training and warehouse facility.

### **Federal Aid and Public Access Division**

During the 1984-85 fiscal year, the Commis-

sion received \$4,960,348 from the Federal Aid in Wildlife Restoration Act (Pittman-Robertson fund) as partial reimbursement for many development and maintenance activities performed on State Game Lands and leased lands. Under this program annual work plans are submitted to the U.S. Fish and Wildlife Service for their review and approval. After the work is accomplished, reimbursement is made by the federal government for up to 75 percent of the approved costs. Our apportionment has totaled \$19,769,356 for the past five years. We have recovered all of this money to help improve wildlife habitat, manage wildlife areas, and provide for public use of wildlife resources.

Another form of federal aid is received from the Endangered Species Act. This program also requires that we submit project proposals to the U.S. Fish and Wildlife Service. For the past two years we have been able to conduct bald eagle and Indiana bat recovery programs which have returned over \$50,000 to the Commission.

For the third straight year, the bald eagle recovery program enabled the Commission to capture 12 young eaglets from nests in Saskatchewan and return them to the Commonwealth where they are raised until able to fly on their own, at which time they are released. Upon maturity they are expected to return to the vicinity of the release site, nest, and raise young of their own.

The Indiana bat recovery program has identified serious declines in our existing wintering populations. Attempts are underway to reduce human disturbance at the cave sites and modify some cave entrances to allow for better microclimate conditions within the cave itself.

### **Public Access Programs**

The Commission continues to place emphasis on providing recreational opportunities for outdoorsmen through our public access pro-

gram. The Cooperative Farm Game Program, approaching its 50th Anniversary, provides public access to over 2.3 million acres on 20,240 tracts. The Cooperative Safety Zone and Forest Game Programs currently provide access to over 9400 tracts totaling 2,126,000 acres.

While these figures are impressive, hunters should not take such extensive access for granted. Hunters need to remember that these tracts are private property and they must be treated with utmost respect. Our lease agreements with these cooperators do not give hunters "rights" to these properties, only opportunities to which the hunter is extended a "privilege." No hunter should object to presenting himself to the landowner to let that individual know who is on his property. Courtesy and consideration to the landowner will go a long way toward keeping "No Hunting" signs from appearing across our countryside.

The Commission has been providing 10-pound bags of seed mix, consisting of dwarf sorghum, millet, buckwheat and sunflowers, to cooperators in our Public Access Programs. This has proved such a success that the Commission decided to expand the program by offering this seed mix for sale to the general public every spring. This seed mix yields good sources of food and cover for many species of wildlife.

### **Federal-State Coordination Division**

The Land and Water Conservation Fund Act, administered by the National Park Service, continues to provide money for acquisition, planning, and development of outdoor recreation projects. During the past fiscal year Pennsylvania received \$106,323 of these funds for use on a 50-50 cost sharing basis to purchase 563 acres of land to be added to State Game Lands in Luzerne, Centre and Schuylkill counties. The Land and Water Conservation Fund Act will expire in 1989.

### **Game Land Planning & Development Division**

During the past fiscal year, 1367 acres of herbaceous openings were planted to small grain and grass legume combinations by Food and Cover Corps personnel. All of the grain planted was left standing for wildlife. An additional 11,886 acres of openings were maintained by mowing. Other treatments included the liming of 1520 acres and the application of fertilizer on 2939 acres to obtain the desired soil fertility. Winter cuttings of woodland borders totaled 857 acres, and 9276 fruit producing trees were

**OVER THE** past three years 36 bald eagles have been captured in Saskatchewan and subsequently released in Pennsylvania. It's hoped the birds will return here as breeding adults and form the basis of a new population of eagles for the Keystone State.





pruned. New construction included 29 miles of roads, 12 parking areas, 361 nesting structures, and 2014 bird houses. Roads, parking areas and boundary lines were maintained. Sharecropping activity on Game Lands continues to play an important role in wildlife management. We received 24,419 bushels of ear corn and 26,556 bushels of shelled corn from sharecroppers. This was in addition to the amount of grain left standing by growers for use by wildlife.

### **Forestry Division**

Just over 12,000 acres of State Game Lands were designated to receive wildlife habitat improvement treatment by commercial timber operators during the period July 1, 1984 through June 30, 1985. To further enhance these areas for wildlife, 105 acres of forests in the proximity of these sales were left as islands or travel lanes. An additional 5557 acres under contract from previous years received active supervision for improvement cutting.

Commercial timber sales were active on 9167 acres during the year, returning \$4,750,085 to the Game Fund. Various private and local economies received more than 30,268,000 board feet of sawlogs and 193,000 tons of pulpwood from State Game Lands during the year while, at the same time, habitat for wildlife was improved.

A total of 481 acres of unmarketable timber also was cut to enhance conditions for wildlife. Of this, 165 acres were cut by individuals or groups who were paid, 177 acres were cut by Commission personnel, and 139 acres were cut by sportsmen's groups.

Herbicide operations removed undesirable ferns on 965 acres of State Game Lands during the summer spray period. This was a prerequisite to conducting any aspect of forest wildlife habitat improvement.

### **Real Estate Division**

During the past fiscal year, an additional 24,690 acres of State Game Lands were acquired and ownership conveyed to the Commonwealth in 25 counties. Cost was \$4,756,345. Several land exchanges contributed to the total acreage figure.

The total of all Miscellaneous Operational Facility lands, such as the Game Farms, remains at 3226 acres, purchased at a cost of \$314,046.

An additional 18,851 acres were purchased with Project 70 Funds during the years 1965-1980. Total area of all Game Commission holdings is now 1,293,413 acres in 275 separate Game Lands in 65 counties.

Our staff of four survey crews performs boundary line surveys for all land acquired by the Commission. They also survey disputed boundary lines and provide topographical surveys. The work of our real estate specialists, draftsmen, abstractor and legal counsel provides assistance in pursuing an aggressive acquisition program.

### **Payments In-Lieu-Of Taxes**

Local governmental bodies received 60 cents per acre in-lieu-of taxes, as required by Act 20 of 1984.

During the past fiscal year, \$774,584 was divided into proportional payments to the county, school district and township where such lands are located.

### **Minerals Resource Recovery and Management Program**

The Game Commission's responsibilities in managing Game Lands for the protection and enhancement of wildlife habitat and public use opportunities include the management of the mineral resources underlying them. Mineral management responsibilities are two-fold. First, the Commission must anticipate impacts to publicly owned surface from mineral recovery operations carried out by those holding mineral rights beneath Game Lands. Because of Pennsylvania's rich mineral heritage, it has been customary from earliest times for landowners to reserve certain mineral and mining rights under lands which they were selling, speculating that these rights would become more valuable as time passed. Many of these rights are still valid and affect private as well as public land ownership. These include the right to mine and remove coal and, in many cases, to produce oil and natural gas. To assure that the Commission's surface ownership rights are protected in such instances, each mineral recovery program proposed for a Game Lands is carefully reviewed with the mineral owner to ensure that a clear legal right exists to carry out the mining or drilling activities. In many instances, the Commission is entitled to payment for damages, especially for merchantable timber. Plans for road, pipeline and well drilling locations are all reviewed, and wherever the Commission can exert its influence as surface owner, mineral development activities are managed to be certain there is minimum disturbance to the surface features and to the public's right to use and enjoy the Game Lands.

Second, mineral management activities also include the administration of agency-owned coal, oil and gas rights. The Commission entertains nominations from development companies for the leasing of certain portions of Game Lands for these purposes. If a project can meet a set of strict environmental protection criteria, the Commission has the authority to lease the right to remove these resources.

Currently, approximately 38,000 acres of Game Lands are leased for oil and natural gas development. There are 29 active oil and gas leases on Game Lands, but drilling has occurred on only 12 to date. The Commission also leases surface mining rights for removal of coal, and has currently approved two operations which resulted in the conveyance of 2481 acres of privately owned land to the Game Lands system in lieu of royalty payments. One of the projects was negotiated to include the



reclamation of 200 acres of previously abandoned mined land and, in addition, is producing significant revenue. In all cases, mineral lease operators are responsible for the safe and environmentally sound operation of their lease tract and for the reclamation and revegetation of disturbed areas to the highest possible utility for wildlife.

Total revenues from the mineral management and leasing program on Game Lands for fiscal 1984-85 amounted to \$1,140,104. This money is deposited in the Game Fund and utilized to underwrite the Game Commission's day-to-day activities as well as for the purchase of additional Game Lands.

### **Wildlife Impact Assessment Program**

The Wildlife Impact Assessment Section within the Division of Environmental Impact Assessment and Minerals is involved in a cooperative federal-state program aimed at identifying and attempting to reduce unnecessary losses to the wildlife resource from major construction projects such as the Interstate Highway Program, flood control impoundments, and other activities that require federal or state approval of construction permits. Applicants for major construction permits, as well as those involving similar but smaller scale activities, are required to demonstrate that their projects have been designed and located in a way which will reduce, so far as possible, any unavoidable adverse impacts to the natural environment. The Game Commission reviews these applications to ensure that all significant adverse wildlife impacts have been identified and the proper steps taken to reduce habitat losses to an acceptable level. Avoiding unnecessary losses of valuable wildlife habitat through early coordination and better project planning continues to be the primary goal of the Commission's impact review efforts.

From July 1, 1984, through June 30, 1985, 38 major construction permits requiring federal-state coordination and agency review were processed by the Wildlife Impact Review Section. These projects dealt primarily with the U.S. Army Corps of Engineers' flood control projects and Pennsylvania Department of Transportation interstate highway construction. In addition, 156 applications involving permits

for solid waste disposal areas, stream encroachments from such things as road relocations, utility corridor crossings, stream-channel relocations, and dam or levee construction, were all reviewed and commented on. Among our foremost interests in this program is an effort to protect valuable wetlands resources and to identify and avoid any impacts to endangered or threatened wildlife species.

Surface mining activities in the Commonwealth annually involve thousands of acres of forested wildlife habitat. PGC field officers, by means of a formal agreement between the Commission and the Department of Environmental Resources, review surface mine permit applications to ensure that the wildlife protection provisions of the Commonwealth's mining laws and regulations are being fulfilled by the industry. Protection of important wetlands and revegetation of mining areas as suitable wildlife habitat are two of the primary goals of the program. Four hundred and fifty-two surface mine permit applications, encompassing 31,900 acres of land, were reviewed and commented on during fiscal year 1984-85. Of this total, 298 acres of wetlands were identified and classified as off-limits to mining, as a result of Commission field investigations.

### **Wildlife Planning Division**

This division was organized in April 1985 by combining the planning functions of the Federal-Aid Division and the Pennsylvania Fish and Wildlife Data Base Program of the Environmental Impact Assessment Division. This division has the primary responsibility of developing a comprehensive land management planning program within the framework of an agency planning system, and coordinating the development and enhancement of wildlife databases to support planning and management programs.

Planning activities this fiscal year were restricted to an investigation of planning systems successfully employed by other state wildlife agencies. Information was reviewed and compiled on each state system as a planning aid for developing a Pennsylvania wildlife planning program.

The Pennsylvania Fish and Wildlife Data Base Program continued to function as a vital source of wildlife information for wildlife planning and impact assessment throughout the fiscal year. This program was supported and used by other state agencies and federal agencies. These agencies accessed the Pennsylvania Fish and Wildlife Data Base 169 times during the year to obtain wildlife data. Additionally, environmental consultant requests for wildlife data were received and processed.

Program thrusts for the program during the year were species profile updating and standard data source compilation. Numerous sources of mammal and bird distribution data discovered this year will facilitate species updating and the development of a nongame planning program. Data collection was initiated and completed for special status—endangered



and threatened—birds and mammals, resulting in updated species profiles for the program. Special funding was obtained for data base updating through research proposal grants from the Pennsylvania Coastal Zone Management Program and the Wild Resources Conservation Fund. These monies are being used to compile updated species distribution, life history, and management data for 96 birds and mammals occurring in the Commonwealth. Species of special concern (endangered, threatened, special concern, and status undetermined) and species principally residing within the Erie coastal zone have been emphasized in this updating effort.

### Howard Nursery

The Howard Nursery provided 3,849,491 tree and shrub seedlings for wildlife habitat improvements on State Game Lands and other public and private lands open to public hunting.

The Planting for Wildlife Program continues to be a success. In the past year, through this program, 332,130 tree and shrub seedlings were distributed to persons interested in providing food and cover for wildlife.

Thirty-three species of tree and shrub seedlings are being grown at the nursery, including many native food-producing trees and shrubs.

The wood shop, which is located at the nursery, manufactured all the wooden information signs for use on State Game Lands. They also constructed the necessary posts and backboards to erect the informational signs on our public access programs.

A Pennsylvania Conservation Corps project is located at the nursery and administered by nursery personnel. The project includes the erection of a pole type building, remodeling of several old buildings, and the construction of wooden nesting and transporting devices for wildlife.

## BUREAU OF LAW ENFORCEMENT

**Gerald D. Kirkpatrick, Director**

The Law Enforcement Bureau is responsible for administering and coordinating the statewide wildlife law enforcement program. This involves, among other things, the apprehension and prosecution of Game Law violators, conducting administrative hearings in connection with hunting license revocations, investigating hunting accidents and processing them through the judicial system, investigating and issuing a variety of special permits relating to wildlife, executing deer and bear deterrent fencing agreements and monitoring their installation, developing and reviewing ongoing and necessary amendments to the Game Law to meet current times and needs, maintaining and updating the Commission's two-way statewide radio system, and overseeing the deputy game protector program.

A major function of any law enforcement pro-

gram is the apprehension and prosecution of persons who violate the law. The Bureau of Law Enforcement realizes that expecting total compliance with all laws is unrealistic. With this in mind, the Bureau has adopted the following goal:

"To achieve and maintain an acceptable and reasonable level of compliance with the laws of the Commonwealth relating to wildlife. Deliberate and intentional violators are vigorously pursued, apprehended and prosecuted."

The deliberate and intentional violator is the person who poses the greatest threat to our wildlife resources and, for obvious reasons, is receiving special attention. These are the kind of violators that the true sportsman will not tolerate or condone.

While most of our law enforcement efforts are conducted by uniformed officers, from time to time it becomes necessary to utilize more sophisticated methods to deal with large scale illegal killing and selling of wildlife.

A wide-range case of this nature came to a climax during the early part of 1985. It was accomplished through the use of undercover operatives who infiltrated black market operations. With two cases still pending on appeals, 66 defendants have acknowledged guilt or have pleaded guilty, nine were found guilty, three were found not guilty, and four charges were withdrawn or dismissed. To date, \$131,155 in fines and \$15,575 in restitution have been assessed. Furthermore, three defendants received a total of 310 days imprisonment. These figures represent the totals for the Commonwealth charges only. Many of the defendants were prosecuted for federal charges or a combination of Commonwealth and federal charges.

In addition to the training of the Game Conservation Officer Trainees, the bureau is contin-

**DEPUTY Game Protector Frank Hoover, Lebanon, collected data at the highly publicized deer hunt at Ridley Creek State Park. Pennsylvania is extremely fortunate in having such a large and highly trained force of volunteer wildlife conservation officers.**





ually providing specialized instruction to all Commission officers in various phases of law enforcement.

The bureau has completely revised the firearms training program to provide a more realistic approach. Our unarmed self-defense training program is a continuing process administered primarily through instructors at the regional level.

### **Deputy Game Protectors**

Pennsylvania is privileged and proud to have an auxiliary wildlife management corps known as deputy game protectors. This group is unequalled in the world. Members are civilians, from all walks of life, who wish to share their spare time in the interest of wildlife management. Deputy game protectors in private life are doctors, lawyers, accountants, engineers, farmers, factory workers, etc.

During the spring of 1985, 72 persons throughout the Commonwealth successfully completed the rigorous process to become deputy game protectors. The present complement of deputies is approximately 1050.

Deputy game protectors, like full-time district game protectors, face the never-ending need of ongoing specialized training in wildlife law enforcement and related wildlife management programs. A portion of the instruction involves mandatory training sessions to increase the professional standards of these public servants. We issue uniform equipment to qualifying deputies. Services rendered free of charge to the Commission, sportsmen and citizens of the Commonwealth by deputy game protectors are valued at several million dollars a year. The Commission is indeed grateful to this group. Standard lesson plans were assembled for training this group, thereby ensuring uniform interpretation of policies, laws and regulations.

### **Deer Deterrent Fencing**

Under new provisions of the Game Law, the

Commission may expend up to \$35,000 a year for deer and elk deterrent fencing. Since October 1984, in addition to furnishing fencing wire and fasteners to qualifying farmers and orchardists, the Commission may furnish related materials, excluding gates and miscellaneous supplies, necessary for fence construction.

The basic design of the fence has been changed from the Penn State five-wire to a more effective six-wire, alternate ground return system in an attempt to provide the most efficient protection available for the approved applicants.

Since the beginning of 1985, our applications, agreements, and inspection reports for this program have been revised, an installation manual has been developed, material specifications and bids written, and the first shipment of materials received. Numerous applications from interested individuals have been submitted and are being processed as materials become available.

### **Bear Damage**

During the first six months of 1985, the Commission's expenditures to settle bear damage claims have decreased dramatically. This reduction, to a great extent, was due to increasing numbers of beekeepers erecting bear-proof fencing provided by the Commission. Where bear fencing is erected and maintained properly, success has been almost 100 percent.

Many bear nuisance complaints stem from people feeding bears. This practice is not only dangerous to people but also is detrimental to the bear. Some bears quickly become accustomed to people, associate them with food, and then seek out the opportunities which ultimately cause problems. Often, bears also do not realize when the feeding is over, and attempt to grab more from the person, causing anxious moments and sometimes injuries. People who put food out for bears, near or around buildings, create problems for others who do not want these animals near their establishments. Bears become accustomed to getting or finding food near buildings and seek them out, causing much concern for other people.

All these problems can be avoided by a few simple precautions: Do not feed bears under any circumstances, and keep garbage and other foodstuff confined so bears are unable to get it.

### **Special Permits**

Special permits are another of the bureau's major responsibilities. They are handled by the Technical Services Division, with assistance from regional office personnel and district game protectors. A computer program has

**A COMPLETELY revised firearms training procedure has been incorporated into the agency's continuing education program to provide officers with a more realistic approach to self-defense.**



been developed to ease the administration of the more than 4100 permits. It will facilitate the data compilation, listing and analysis of all the information necessary to maintain our permitting services.

New applicants for taxidermy permits are required to pass a two-part examination prior to being issued a permit. Upon completing the written portion of the examination, each applicant must present five mounted specimens for review by the examining board. Although this permit plays no direct part in the management of the wildlife resources in the Commonwealth, it serves as an assurance to the sportsman that the taxidermist who handles his "once in a lifetime" trophy has the skills required to preserve and mount the specimen in a professional manner. In June of this year, 118 applicants were tested at the Southcentral Regional Office. Of these, 65 received passing scores, making them eligible to apply for a permit to practice taxidermy.

### **Radio Communications**

The Law Enforcement Communications Division is responsible for providing, maintaining and updating our communications equipment and to keep abreast with Federal Communications Commission and Game Commission requirements.

This division prepares equipment purchasing specifications and service contracts, and budget, inventory and licensing applications for radio equipment. It also coordinates equipment service, operates the Harrisburg station, and evaluates applications for communications facilities on State Game Lands.

The required updating of equipment in the Southcentral Region has been completed, and we are now compiling information for modernizing equipment in the Southwest Region.

One of our mobile radio frequencies is being shared with the Fish Commission to provide more direct communications and closer cooperation between the field personnel of both agencies.

### **Game Law Codification**

We are extremely pleased with the progress being made by the House Game and Fisheries Committee, chaired by State Representative Russell P. Letterman of Milesburg, concerning the Game Law codification. The codification, prepared by Representative Letterman and his staff, committee members and personnel from the Game Commission, represents the first progressive effort to fully consolidate and modernize the Game Law in almost 50 years.

According to Letterman, "In the process of

consolidation, we have taken out archaic and ambiguous provisions, deleted redundant and contradictory language, and have replaced them with new sections written to meet present-day requirements."

We are hopeful this long-awaited improvement in our law enforcement system will become law, and offer a more modern approach for our enforcement officers.

### **Bureau of Law Enforcement Creed**

We are proud to be able to look each member of the Commission or any other person in the eye and to say, without fear of successful contradiction, that we have tried in all ways to be fair and just to all men; that we have tried to interpret the law fairly and according to what we consider its spirit rather than its literal wording; that we have allowed no officer to use his position to persecute rather than prosecute, or to wrong anyone, and have shown no partiality to any living person for any reason.

## **THE BUREAU OF MANAGEMENT INFORMATION SYSTEMS**

**Lyle M. Koons, Jr., Director**

The Bureau of Management Information Systems continues to provide office automation support to all operating bureaus and regional offices.

The Technical Services Division provides all systems analysis, computer programming, communications programming, data base management, systems software and office automation support for the agency.

The Data Control Division provides data analysis, data entry, and output analysis support. This division is responsible for completeness and accuracy of data and proper distribution of reports.



**BARRY WARNER, Chief of the Special Operation Division, demonstrates unarmed self-defense tactics. Most of this training is conducted by instructors at the regional level.**



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## **GAME NEWS**

**For a Friend . . .**

The Operations Division provides computer operations and network services to the agency. The division ensures that all computer programs are run on a timely basis and that all equipment is functioning properly.

Last year, we installed a new software release, distributed data responsibility to the own-

ers of the information, acquired more word processing/micro computing capability, implemented a disaster recovery plan, recruited and trained two computer science management trainees to soften the loss of two experienced technicians, converted our computer language to the newest standard, designed and developed an agency reporting and management system, added the additional license types to the accounting system for license issuing agents, implemented a special permit system and incorporated several changes to the GAME NEWS subscription system. We also began pre-development studies to properly implement a totally new assets management system.

Our plans for the future are equally aggressive, and we will continue to provide the best possible service at the least possible cost.

## **PGC FINANCIAL REPORT—JULY 1, 1984 to JUNE 30, 1985**

### **Game Fund**

The balance sheet and the statement of unreserved fund balance were prepared in accordance with Generally Accepted Accounting Principles (GAAP).

Actual revenue deposited in the Game Fund during the 1984-85 fiscal year was \$31,768,359, a decrease of \$775,650, or 2 percent, from last year's cash receipts. An additional \$553,026 revenue was accrued as a receivable on June 30, 1985, for an overall decrease in revenue of \$222,624. The major contributing factor to this decrease resulted from aggregate hunting license revenue declining approximately \$755,000. Offsetting this decrease were increases in interest on securities and deposits which rose \$311,000; reimbursements of \$164,000 from the Commission's first year participation in the Pennsylvania Conservation Corps program; and Game Law fines increasing \$69,000.

Expenditures and commitments for the 1984-85 fiscal year totaled \$39,197,445, an approximate \$1,500,000 increase over last year's total. Game Commission personnel salaries, wages, and state share employee benefits increased approximately \$938,000, or 5 percent, the direct impact of previously negotiated collective bargaining agreements. Payments to local municipalities for in-lieu-of tax payments increased \$272,000, the result of Act 20 of 1984 increasing payments from 39¢ an acre to 60¢ an acre. Printing costs increased approximately \$237,000. The remaining increases can be related to land acquisition purchases, which increased substantially over last year. Significant cost decreases were evidenced by the Commission's vehicle fleet purchases, approximately \$250,000 less than last year's total.

Unused current appropriation monies lapsed at year-end closing were \$1,074,930. Unused

monies lapsed from prior year appropriations that were encumbered on June 30, 1984, were \$7,183,790, which resulted primarily from the \$4,900,000 initial commitment for the Game Commission's new building construction, architectural, engineering and design costs and approximately \$1,950,000 in land acquisition purchase commitments being "rolled forward" and recommitted during the 1984-85 fiscal year.

In summary, the unreserved/undesignated balance of the Game Fund on June 30, 1985, was \$15,228,996, an increase of \$307,910 over the previous fiscal year-end total.

Act 271 of the Game Law provides that not less than \$1.25 from each resident hunter's paid license fee shall be used solely for the selection, restoration, rehabilitation and improvement of lands available for public hunting, to provide and improve habitat for the purpose of producing natural propagation of wildlife. Resident licenses sold during the 1984-85 fiscal year totaled 1,149,376. This mandated that a minimum of \$1,436,720 be expended for the above mentioned purposes. Actual expenditures totaled \$2,673,227, an excess of \$1,236,507 over the minimum requirements of this Act.

Act 632 of the Game Law states that \$1 of each fee collected for issuing resident and non-resident hunter's licenses and tags for antlerless deer shall be used solely for cutting or otherwise removing overshadowing tree growth, to produce underbrush-sprouts and saplings for deer food and cover on game land. Antlerless deer license sales for the 1984-85 fiscal year totaled 474,183. This mandated that a minimum of \$474,183 be expended for the above-mentioned purposes. Actual expenditures for the above totaled \$1,477,471, an excess of \$1,003,288 over the Act's requirements.

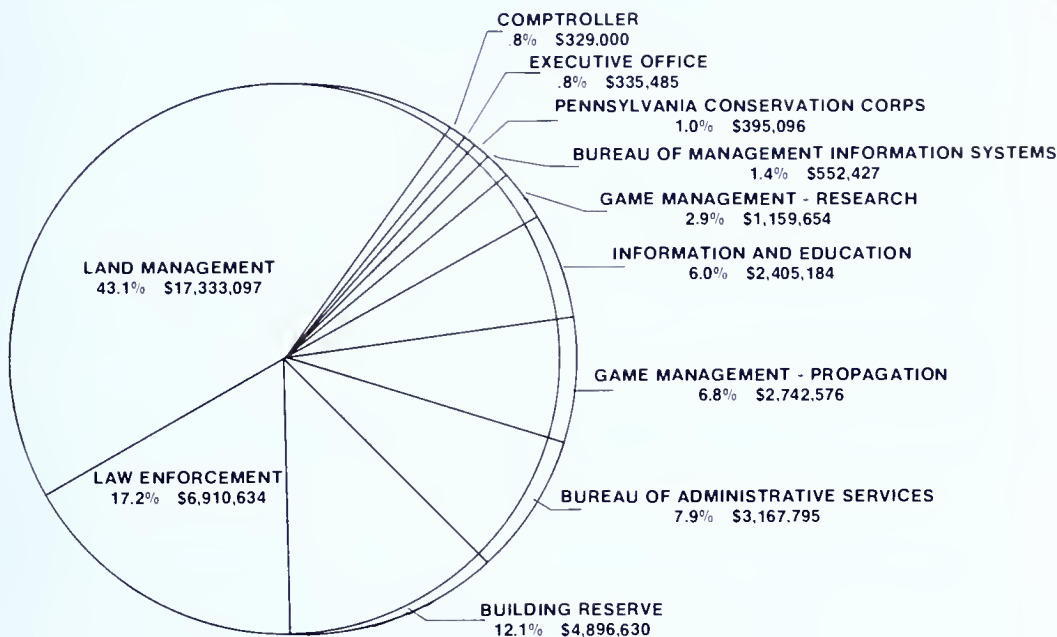


## GAME FUND EXPENDITURES AND COMMITMENTS

\$40,227,578 \*

JULY 1, 1984, TO JUNE 30, 1985

\* Includes \$6,849,142 recommitted during 1984-85 from June 30, 1984 commitments for new building and land acquisition

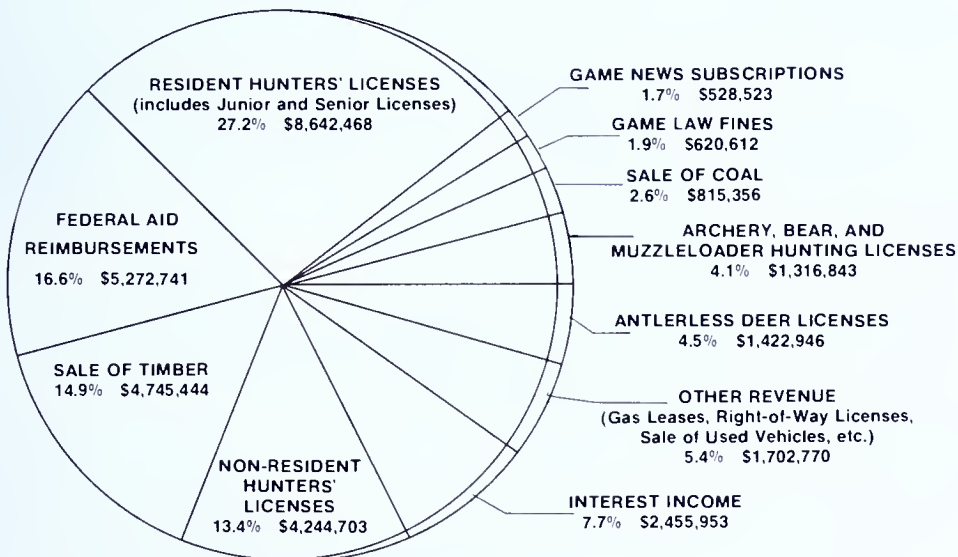


(rounded to nearest dollar)

## GAME COMMISSION REVENUE

\$31,768,359

Deposited July 1, 1984, to June 30, 1985



(rounded to nearest dollar)

## GAME FUND BALANCE SHEET, JUNE 30, 1985

### ASSETS

Cash with Treasurer .....	\$ 24,035
Cash in Transit. ....	98,190
Cash—Advancement Accounts .....	205,855
Temporary Investments .....	21,916,430
Accrued Interest Receivable .....	222,657
Due from Other Commonwealth Funds .....	143,000
Grants Receivable—Federal Government .....	89,179
<b>Total Assets .....</b>	<b><u>\$22,699,346</u></b>

### LIABILITIES

Vouchers Payable .....	\$ 88,280
Accounts Payable and Accrued Liabilities .....	1,091,167
Due to Other Commonwealth Funds .....	762,000
Due to Other Governments. ....	54,926
<b>Total Liabilities .....</b>	<b><u>\$ 1,996,373</u></b>

### FUND EQUITY

Reserved for Current Encumbrances .....	\$ 5,431,412
Reserve for Restricted Revenue .....	42,565
Fund Balance—Unreserved/Undesignated .....	15,228,996
<b>Total Fund Equity .....</b>	<b><u>\$20,702,973</u></b>

<b>Total Liabilities and Fund Equity .....</b>	<b><u>\$22,699,346</u></b>
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## STATEMENT OF UNRESERVED FUND BALANCE FOR THE FISCAL YEAR ENDED JUNE 30, 1985

Fund Balance—Unreserved/Undesignated, June 30, 1984 .....	\$14,921,086
Add: Revenues	
Actual Cash Receipts, July 1, 1984, to June 30, 1985 .....	\$31,768,539
Cash in Transit .....	98,190
Receivables as of June 30, 1985:	
Interest on Short-Term Investments .....	222,657
Due from Other Commonwealth Funds .....	143,000
Grants Receivable—Federal Government .....	89,179
	<u>32,321,565</u>
Lapses from Prior Year Appropriations .....	7,183,790
<b>Beginning Fund Balance and Additions .....</b>	<b><u>\$54,426,441</u></b>
Deduct: Expenditures and Commitments	
Expenditures and Commitments, June 30, 1985, from Current Appropriation .....	\$40,227,578
Less: Commitments liquidated after June 30, 1985 .	(2,339,352)
Accrued Expenditures, July 1, 1985, through August 31, 1985, for Goods and Services delivered prior to July 1, 1985 .....	<u>1,309,219</u>
<b>Total Deductions .....</b>	<b><u>39,197,445</u></b>
<b>Fund Balance—Unreserved/Undesignated, June 30, 1985 .....</b>	<b><u>\$15,228,996</u></b>

## SCHEDULE OF REVENUE DEPOSITED IN GAME FUND JULY 1, 1984, to June 30, 1985

### LICENSES AND FEES:

Resident Hunting Licenses—Adult .....	\$ 7,605,738
Resident Hunting Licenses—Junior .....	690,516

Resident Hunting Licenses—Senior .....	346,214
Nonresident Hunting Licenses .....	4,244,703
Antlerless Deer Licenses .....	1,422,946
Archery Licenses .....	545,141
Resident Bear Licenses .....	493,200
Nonresident Bear Licenses .....	20,300
Muzzleloader Hunting Licenses .....	258,202
Special 3-Day Nonresident Regulated Shooting Grounds Licenses .....	6,047
Hunting Licenses—Issuing Agents' Application Fees .....	25,023
Nonresident Trapping Licenses .....	700
Special Game Permits .....	63,102
Rights-of-Way Licenses .....	250,828
<b>Total Licenses and Fees .....</b>	<b>\$15,972,660</b>
<b>FINES AND PENALTIES:</b>	
Game Law Fines .....	\$ 620,612
<b>MISCELLANEOUS REVENUE:</b>	
Sale of Timber and Other Wood Products .....	\$ 4,745,444
Interest on Securities and Deposits .....	2,455,953
Sale of Coal .....	815,356
Sale of GAME NEWS .....	528,523
Royalties and Ground Rentals from Gas and Oil Leases .....	309,493
Miscellaneous (Donations, Game Land map sales, sale of grain and hay, SPORT promotional publications, prior year expenditure refunds) .....	256,009
Waterfowl Management Stamp Sales and Art Print Royalties ....	200,574
Working Together for Wildlife Program .....	135,299
Wildlife Promotional Publications and Materials .....	107,729
Sale of Skins and Guns .....	73,198
<b>Total Miscellaneous Revenue .....</b>	<b>\$ 9,627,578</b>
<b>Total Revenue Subject to Executive Authorizations .....</b>	<b>\$26,220,850</b>
<b>AUGMENTATIONS TO EXECUTIVE AUTHORIZATIONS:</b>	
Federal Aid Reimbursements for Wildlife Restoration, Recreation, Research and Land Acquisition .....	\$ 5,272,741
Sale of Used Automobiles and Other Vehicles .....	135,325
Sharecropping and Agricultural Leases .....	52,255
Pennsylvania Conservation Corps Program Reimbursements ....	51,038
Contributions to Endangered Species Program .....	36,150
<b>Total Augmentations .....</b>	<b>\$ 5,547,509</b>
<b>GRAND TOTAL OF ALL REVENUE DEPOSITED IN GAME FUND ....</b>	<b><u>\$31,768,359</u></b>

**GAME COMMISSION FUNCTIONAL PROGRAM ACTIVITIES  
EXPENDITURES & COMMITMENTS  
Current Appropriation  
June 30, 1985**

<b>EXECUTIVE OFFICE .....</b>	<b>\$ 335,485</b>
<b>COMPTROLLER OPERATIONS .....</b>	<b>329,000</b>
<b>BUREAU OF ADMINISTRATIVE SERVICES:</b>	
Administration of Regional Field Offices (Personnel, Services, Maintenance) .....	\$1,264,809
Hunting License Section .....	864,267
Personnel and Labor Relations .....	356,473
Internal Stores and Mailroom .....	343,513



Training School and Educational Programs.....	253,045	
Procurement .....	85,643	3,167,750
<b>INFORMATION AND EDUCATION:</b>		
Pennsylvania GAME NEWS.....	\$ 878,013	
Conservation Education .....	830,496	
Hunter-Trapper Education.....	245,740	
Public Information and Exhibits Sections .....	166,921	
Photography—Audio/Visual Operations .....	108,964	
General Administration .....	98,929	
Non-Game Wildlife and Endangered Species Programs .....	76,121	2,405,184
<b>GAME MANAGEMENT—PROPAGATION:</b>		
Ring-necked Pheasant Program .....		2,742,576
<b>GAME MANAGEMENT—RESEARCH:</b>		
Deer and Elk Studies.....	\$ 267,503	
Ruffed Grouse and Pheasant Habitat Research Projects.....	215,350	
Bear Cooperative Study .....	148,807	
Waterfowl Research Project .....	147,767	
Turkey Study .....	123,010	
Wildlife Technician Activities .....	120,578	
Furbearer Research Project, Small Game Harvest Survey and Rabbit Study.....	86,161	
Non-Game Wildlife and Endangered Species Programs .....	50,478	1,159,654
<b>LAW ENFORCEMENT:</b>		
General Law Enforcement.....	\$3,726,059	
Deputy Law Enforcement .....	855,272	
General Administration and Supervision—Statewide Servicing Wildlife Complaints, Removal and Disposal .....	577,537	
Radio System.....	481,452	
Training.....	334,836	
Special Permits .....	102,292	
Assistance to Other Commonwealth Law Enforcement Agencies .....	59,729	
Non-Game Wildlife and Endangered Species Programs .....	14,053	6,910,634
<b>LAND MANAGEMENT:</b>		
Land Acquisition, Right-of-Way Program, In Lieu-of-Taxes.....	\$7,717,833	
Maintenance and Construction.....	2,347,966	
Forest Management.....	1,840,216	
Automotive and Equipment Maintenance .....	1,323,908	
General Administration and Supervision—Statewide Cooperative Public Access Programs.....	1,235,158	
Herbaceous Openings for Wildlife .....	1,177,216	
782,994		
Environmental Impact Assessment and Minerals Recovery Programs.....	322,833	
Howard Nursery.....	275,381	
Training and Safety Programs.....	150,169	
Non-Game Wildlife and Endangered Species Programs .....	82,804	
Wildlife Planning and Information Services .....	76,619	17,333,097
<b>BUREAU OF MANAGEMENT INFORMATION SYSTEMS .....</b>		<b>552,427</b>

PENNSYLVANIA CONSERVATION CORPS .....	395,096
BUDGETARY RESERVE FOR CONSTRUCTION, ENGINEERING AND DESIGN OF NEW HEADQUARTERS BUILDING .....	4,896,630
Treasury Department—Replacement Checks .....	45
<b>TOTAL EXPENDITURE AND COMMITMENTS incurred as of June 30, 1985 .....</b>	<b><u>\$40,227,578</u></b>

**P.G.C. EXPENDITURES AND COMMITMENTS**  
**Incurred July 1, 1984, to June 30, 1985, from Current Appropriations**

Salaries and Wages. ....	\$14,808,781
State share employe benefits. ....	5,799,002
Land purchases and acquisition costs .....	5,569,712
Construction, engineering, design and administration of new headquarters building. ....	4,881,118
Printing and advertising .....	1,368,469
Automotive repairs, supplies, and rentals. ....	967,662
Payments to local municipalities in-lieu-of taxes .....	759,855
Maintenance and improvements of buildings, grounds, and machinery .....	679,733
Payments to other State agencies:	
Comptroller services rendered .....	329,000
Data processing services .....	107,168
Auditing services .....	119,112
Personnel services .....	39,450
Purchasing services .....	12,445
Checkwriting and disbursement services .....	10,319
Pheasant feed .....	467,281
Purchase of motor vehicles .....	389,856
Travel and special conference expenses .....	374,323
Radio and communications equipment purchases and contracted maintenance service .....	362,042
Telephone expenses .....	359,020
Building rentals and land rights-of-way lease payments .....	349,840
Postage .....	345,302
Heating, power and light .....	274,228
Legal, appraisal, and consulting fees .....	257,088
Other supplies and services .....	246,817
Uniforms for Game Commission personnel .....	213,975
Office equipment, maintenance, rentals, and supplies .....	205,431
Purchase of equipment and machinery .....	199,793
Wildlife habitat seedlings and plantings .....	186,476
Electronic data processing contractual services, rentals, and purchases .....	145,399
Educational supplies, literature, and classroom training equipment .....	117,871
Research grants to universities and wildlife associations .....	114,680
Insurance—auto, liability, fidelity .....	83,912
Clinical services, laboratory and medical supplies, drugs .....	56,549
Payments to individuals for bear damage claims .....	25,824
<b>GAME FUND GENERAL OPERATIONS TOTAL .....</b>	<b>\$40,227,533</b>
Replacement Checks, Treasury Department .....	45
<b>GAME COMMISSION TOTAL .....</b>	<b><u>\$40,227,578</u></b>

# Why Ten Hours of Hunter Education?

By Jim Filkosky

Chief, Hunter Education Division

**B**EGINNING this month, the Pennsylvania Game Commission is requiring all hunter education courses to be at least ten hours long. The increase from six to ten hours may seem dramatic to some, but it's actually just another step in the agency's ongoing efforts to provide all new hunters with a sound base upon which they may grow into upstanding sportsmen. In 1969, when training, then called hunter safety, became mandatory, only four hours of instruction were required. And a look back a little further, to 1959, when a formal hunter safety program was first adopted in Pennsylvania, shows that four hours of training was on a voluntary basis. No formal training was required by law for a person to legally roam our fields and forests in pursuit of game.

Why, through the twenty-seven years from 1959 to 1986, has hunter training evolved from a voluntary basic four-hour safety course to a comprehensive, mandatory ten-hour hunter education program? A closer look at hunting and hunter safety/education over the years will show why the additional time is so important to the future of our sport.

## New Hunters, More Accidents

After World War II, the manufacture and use of firearms and ammunition was again geared toward a peacetime public. The crack of a rifle or the boom of a shotgun could once more be heard at the local gun club or resounding through the mountain valleys. Competitive shooting, plinking, and sport hunting again became favorite activities. In addition, archery began making its way into the then predominantly gun sport world.

Taking advantage of available firearms and ammunition after four years of war-related shortages, plus ready access to many acres of prime hunting land, the number of hunters going afield increased dramatically.

In Pennsylvania the number of licensed hunters increased from 582,734 in 1943 to 839,947 in 1949. And as the numbers of hunters rose, so did the hunting accident rate. Many inexperienced persons, young and old alike, were out for their first hunt with either a firearm about which they knew very little or, even worse, one that was unsafe. They might have been called accidents waiting to happen. From 1944 through 1949 there was an average of 374 hunting accidents a year, despite the Game Commission's ongoing "hunt safely" campaign. It was evident that many of those who needed guidance and help were not getting it here, and as accident figures escalated across the country, hunters elsewhere apparently weren't getting it either.

## Formal Hunter Training Begins

The National Rifle Association had become concerned about hunting accidents even prior to WWII. With their encouragement, state conservation agencies began to develop formal hunter safety and firearm training programs. In 1949, with NRA's assistance, the New York State Conservation Department implemented this country's first mandatory hunter training program. Now, thirty-two states have mandatory programs and eighteen have voluntary ones.

In 1959, when Pennsylvania's voluntary program began, safe hunting and gun handling practices, safety laws



affecting hunters, and range safety received the most emphasis. Some development of shooting skills and a little information on hunter responsibility were added along the way. If time permitted, safe bow hunting practices were taught too. In most cases, the four-hour period was sufficient to cover these aspects. At the option of the instructor, most of whom were and still are trained volunteers, live firing was included if range facilities and ammunition were available. This enabled youngsters, many of whom had never fired a gun, the opportunity to do so under proper supervision.

### Results of Early Hunter Safety

Records show that noncompulsory instruction had little effect on Pennsylvania's accident rate. In fact, in the ten-year period from 1959 through 1968, accidents continued to increase. Why? Evidently those who needed the help most were not those voluntarily attending a hunter safety class. Safety was, and still is, a hard product to sell.

In 1969, with strong sportsmen support, the Game Commission made the completion of a hunter safety course necessary before a person under age 16 could buy his first hunting license. Progress was immediate. During the 1969 season, there were 51 less hunting accidents than in 1968 — 479 compared with 530 — a decrease of approximately 10 percent. As 50,000 new hunters were being trained annually, the downward trend continued. The program's objective of providing safer hunters was now becoming a reality.

### New Problems

Significant changes in the attitudes of people and land use practices during the twenty years after hunter safety began dictated that corresponding changes be made in hunter safety programs, too. Our population was expanding. Babies born in the postwar period were reaching adulthood, and the population was becoming more mobile. Many persons left the cities in search of open spaces in which to live.



**THESE YOUNGsters know that being safe, responsible and knowledgeable hunters is important to the future of their sport. Hunter education courses start them on the right track.**

Highways, shopping centers and housing developments consumed what had been prime hunting areas for many sportsmen.

Farms also were changing. Economics were forcing farmers to produce more and more. More efficient equipment became available, brushy fencerows and field borders were removed to take advantage of it, and wetland areas were drained. Crops took the place of wildlife and hunters on these areas.

Aggravating the loss of hunting areas were the changing attitudes toward the sport. Hunting was not as readily accepted as it had been just a generation earlier. The humaneness of the sport and the credibility of hunters were being questioned. The behavior of a few slobs was given much publicity, and landowners became less tolerant of strangers roaming at will over their property. It became apparent that, in order to keep pace with the changing times, attention to just safety was not enough. Hunters had to be

taught more about the sport, the role of hunting in modern wildlife management, and about ethics.

To make room for these needs, in 1976 the minimum instruction time was increased from four to six hours. The two additional hours were needed to address the important subjects of hunter-landowner relations, wildlife conservation and management, and sportsmanship. The additional information was geared so that young hunters left their courses with a better understanding of ecological principles as well as ethics. As the training role no longer stressed only firearm and bow and arrow safety, but many other subjects as well, it was only fitting that the program name be changed from Hunter Safety to Hunter Education.

The changes that led to lengthening the course to six hours continue. Our population is still increasing, placing even more demands upon our natural resources for food, housing, highways, playgrounds, parks, etc. These requirements continue to eliminate wildlife habitat. This means less game to hunt, fewer places to hunt, and more hunters in a given area. Overcrowding creates undesirable competition among hunters. This can lead to irresponsible behavior, even among some who normally are most responsible. Such competition can cause the size or number of animals bagged to become the distorted measure of successful hunting.

A two-year study of hunter education in the United States, conducted by the International Association of Fish and Wildlife Agencies (IAFAWA) and the U.S. Fish and Wildlife Service, indicated that course content and training should become more uniform across the country. Each state agency, they concluded, should not be an entity unto itself when it comes to educating future hunters. While program variability among states is inevitable, it is still necessary to provide sound basic information to all hunters.

Some crucial points had to be determined by the IAFAWA study team. For

example, they had to decide on course content in relation to the most reasonable amount of time that could be expected of students and instructors—keeping in mind that for the most part instructors in every state are volunteers. After exhaustive research, the team concluded that a minimum of ten hours was needed to adequately expose new hunters to all the necessary topics. The team recommended that safety and hunter responsibility be given equal time, as these two facets are equally important to meeting the objectives of the program. Some subjects in each category, it was recognized, need only be touched upon lightly, while others had to be thoroughly covered. In addition to lectures, actual student involvement was wholeheartedly encouraged. While it might be more time consuming, hands-on instruction is the best teaching technique. It not only helps students better understand certain principles, but also enhances student interest. A simulated hunting experience involving firearm and hunting safety, hunter ethics, game laws, conservation, wildlife management, first-aid, hunter-landowner relations, and other subjects is the ideal situation to test student awareness and understanding. A live firing experience on an approved range is another excellent option for hunter education classes. Instructors are encouraged to employ these and other hands-on techniques in the ten-hour course format.

In hindsight, if the early hunter safety classes had been long enough to stress hunter responsibilities as much as they did safety, public understanding and hunter behavior would probably be more positive today. But we can't change the past, we can only proceed as best we can today. Longer hunter education courses will mean more work for everyone involved, but if the end result is safer, more responsible, and more knowledgeable hunters, that will be ample reward for all those who are truly committed to improving the future of sport hunting.



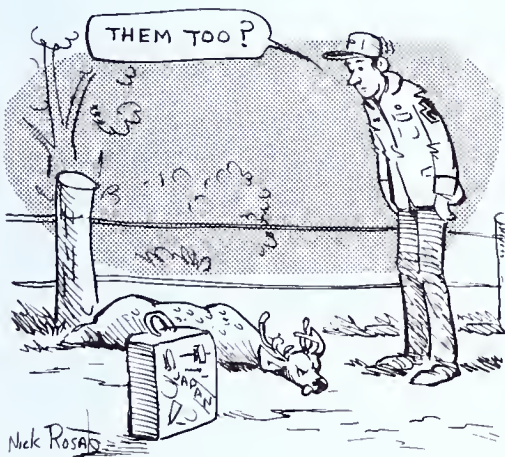


# FIELD NOTES



## Motorized Slobs

**McKEAN COUNTY**—Increasing numbers of landowners are posting their properties because of abuses caused by drivers of off-road vehicles. Rarely does a day go by that I don't receive at least one report from an upset landowner about this inconsiderate practice. Even more disturbing is the fact that many of the abusers I have talked to have no idea on whose property they're driving, and most don't care. One landowner thinks the only solution would be for him to take a few friends and drive all over the properties of these inconsiderate people, with every sort of vehicle imaginable, every hour of the day and night, every month of the year. If you want to drive off the beaten path, ask permission first. Taking open land for granted is a losing proposition, one none of us can afford.—DGP John Dzemyan, Smethport.



## Escapee

**PERRY COUNTY**—I recently received a call about a roadkill along Routes 11-15. I was very surprised, upon finding the animal, to discover it was a sika deer from Japan.—DGP LeRoy L. Everett, Newport.

## Take A Hike

**LEBANON COUNTY**—Now, on through the next couple months, may be the time to enjoy your favorite hunting area with a little different outlook. Tracking and track identification skills can be sharpened after a fresh snow. Also, you'll have a better idea of what species of wildlife use the area and their habits. Another plus could be a better knowledge of the terrain and habitat.—DGP G. W. Smith, Lebanon.

## Way to Go!

**MIFFLIN COUNTY**—The Juniata Coon Hunters Association wanted to do something for young Eddy Hutchinson who was in need of a liver transplant, so they sponsored a fund raising coon trial and collected over \$11,000. To date, the club has raised approximately \$17,000 and they plan to continue to solicit donations. Eddy received a new liver in early September and is recuperating nicely. A tip of the old stetson to the coon hunters and good luck to Eddy.—DGP Timothy A. Marks, Milroy.

## Put Back The Curtains

While sitting in my living room for just a short while, I heard several birds collide with our large window. When I went outside to investigate, I noticed that because my wife had just removed some sheer curtains from the window I could clearly see the reflection of myself and our dogwood tree full of red berries in the large mirror on the opposite wall. What I believed to be kamikaze birds were merely normal ones trying to fly from one dogwood tree to another.—LMO Stephen L. Opet, Tamaqua.





### Continuing Confusion

**ADAMS COUNTY**—I've been experiencing problems with my phone service. My neighbor, who raises hogs, and I both have answering machines to take messages while we are out. On his message to callers, he identifies himself and then states, "Please leave your message at the sound of the oink," followed by a brief pause, and then, "Oink, Oink." Somehow our lines became tangled and my callers were receiving the beginning of my message where I introduce myself and then the end of his message to make their remarks at the sound of the oink. —DGP Lawrence D. Haynes, Gettysburg.

### Incomprehensible

**ADAMS COUNTY**—I recently spoke with one of our special investigators who had worked on our 28-month undercover investigation. He said one of the hardest parts of the job was trying to understand the outlaws' attitudes toward wildlife. Such persons just feel that wildlife is there for the taking. Violators have no regard for ethics, morals, respect for the animal, or the good of the species. It's really sad that there are individuals like this in our society; however, with the help of true sportsmen involved in the SPORT program, I trust that we can eliminate some of the slobs. Help out. It's your wildlife. —DGP Gary W. Becker, Aspers.

### Welcome Aboard

**CUMBERLAND COUNTY**—Being involved in special investigations for the last three years put me out of touch with the day to day workings of a district officer. I was a little shell-shocked by the complexities and responsibilities of the position. Upon my assignment to this district I would like to take this opportunity to recognize the district deputies and the game protector in the adjoining district who have been responsible for a vacant district for a year. They have my lasting respect for their dedication and efforts, as well as thanks for helping me, the new guy, adjust to a whole new world. Thank you. —DGP Gregory C. Houghton, Manchester.

### All In the Family

**UNION COUNTY**—A doe and fawn had been killed by a vehicle near my sister's home. When her son noticed the animals had disappeared, he asked his mother what happened. Before she could answer, my nephew's twin sister stated that the "wildman" probably had come and picked them up. —DGP Bernie Schmader, Millmont.

### Help Protect 'Em

**CHESTER COUNTY**—A year ago, a beaver trapper in my district accidentally caught a large female river otter in one of his sets. With beaver season again in full swing, I wish to remind all beaver trappers to use extreme caution when placing traps in areas where otter are known to exist. Please refrain from making sets in narrow spring runs where otter travel, especially if you notice slides, tracks, seats containing large amounts of fish scales, paths through the snow, or other signs. Place your sets elsewhere. You'll be doing the resource a big favor. —DGP Keith P. Sanford, Coatesville.

## Fourth Stamp

**TRAINING SCHOOL**—While on weekend leave this past September, I attended the Pymatuning Waterfowl Exposition where the state's 1986 Waterfowl Management Stamp was selected. A beautiful painting of blue-winged teal was chosen from 109 entries. Most of the entries were extremely high quality works by professional artists from throughout the country. All monies derived from these voluntary stamps are used for waterfowl-related programs. They make excellent collector's items and good investments for the future. So support our waterfowl stamp program and give our ducks and geese a chance to find some living space in this state. — Robert W. Criswell.

## Almost Heaven

My youngest son Matt had just returned from his third auto trip to Alaska. As we were standing in the yard after dinner, he looked around at the Game Lands surrounding our farm and said, "I just drove 6500 miles and I haven't seen anything as nice as this." — LMO R. B. Belding, Waynesburg.

## Poor Pets

**ALLEGHENY COUNTY**—It still amazes me, considering all the news coverage from radio, newspaper, and television, that there are those who still pick up raccoons. They take them home, cuddle them, and let children handle them. Please, folks, the pleasure is not worth the risk. — DGP S. E. Lockerman, Pittsburgh.

## In the Field

**TRAINING SCHOOL**—After 18 weeks of intensive training at the school, all 25 of us were anxious to begin our field assignments and initiate our own SPORT program—Students Practicing Our Recent Teachings. — Robert L. Prall.

## Confused

**DAUPHIN COUNTY**—When the Game Commission issued me a tranquilizer gun to handle nuisance wildlife complaints, the last animal I thought I'd ever use it on was a wild turkey. Yet the call I received about a turkey eating tomatoes from a garden, perching on the hood of a pickup truck, roosting on a roof and peering in the screen door of a house dictated just that. When Deputy Evan Smith and I arrived at the scene, we frightened the bird away for the remainder of the day. The following day I got another call, telling me that the turkey was back, so this time we turned to the tranquilizer gun. Guesstimating the bird's weight, I arrived at what I thought was a safe dose and let "Dead-eye" Smith pull the trigger. In a matter of minutes we had one "bagged" gobbler and I'm happy to report it's healthy and strutting his stuff in an area where he'll cause no more trouble. — DGP Scott R. Bills, Millersburg.



## So There

**TRAINING SCHOOL**—During a recent open house here, Trainee Jim Trombetta showed his three-year-old son some damage a bear had done to a tree. After returning to the school, Jim's son approached Supervisor Dick Furry and told him to spank that bear and tell him not to do it again. — Peter F. Aiken.

## Or Anybody Else

**MONTGOMERY COUNTY**—While patrolling the Graterford Prison grounds I observed a most unusual bird. Among a large group of vultures was one that was nearly all white except for a few dark markings on the shoulders and under the wings. Although the bird was not a true albino, it was a rare sighting for this officer. — DGP Doug Killough, Perkiomenville.

## Hanging On

**TIOGA COUNTY**—While checking bear snares I saw a wildcat only one mile from my home. This is only the second time I have ever seen a wildcat, other than those caught in traps that had to be released. It was crossing some open hay fields and gave me the opportunity to view it for nearly five minutes. It is gratifying to know that we still have areas wild enough to support this species. — DGP John Snyder, Wellsboro.



## Unexpected Instructor

**TRAINING SCHOOL**—While guiding tours at our open house here, I met a very interesting lady. She had been the cleaning lady for the Marshall hunting camp before it was purchased and became the Ross Leffler School of Conservation. Suddenly, I found myself being guided on my own tour, learning and enjoying it more by the minute. — Shayne Hoachlander.



## The Shakes

**LUZERNE COUNTY**—At a recent Hunter Education Course I asked the students if they knew what “buck fever” was. Some of the responses were: “It’s a form of rabies.” “It’s a sickness you get from field-dressing a sick deer.” And “It’s a cold the deer get when they lose their winter coat.” — DGP Edward J. Zindell, Wilkes-Barre.

## Plan Now

**CRAWFORD COUNTY**—The contest to select this year’s state duck stamp was held in Linesville during the 1985 Waterfowl Expo. The 109 paintings were outstanding. If you have any interest in ducks—Linesville is the place. If you missed this Expo, be prepared for 1986, because it will be bigger and better. — DGP Dave Myers, Linesville.

## Super Sonic

**TRAINING SCHOOL**—One morning we were walking around the school grounds observing songbirds as part of our bird identification course. We were identifying various warblers, sparrows, woodpeckers, and vireos when one trainee turned his binoculars skyward. When the rest of the class realized he was watching a jet high in the sky, he was asked what he was looking at. He replied, “A gashawk.” — Richard J. Shire.



## Dishpan Eyes

**BRADFORD COUNTY**—Dave Rutkowski, superintendent of Mt. Pisgah State Park, told me that in just one week his wife saw the following from her kitchen window: a red fox with 4 young, a doe with twin fawns, a cinnamon-phase black bear, red squirrels, gray squirrels, chipmunks, rabbits, woodchucks, pheasants, a raven, crows, and many other song-birds. I think I'll volunteer to do her dishes. —DGP William A. Bower, Troy.

## A Rare Find

**GREENE COUNTY**—Last September I was fortunate enough to find a stand of native American chestnut trees producing an abundant supply of tasty chestnuts. Years ago this tree was quite common and was favored for its lumber and mast production. A fungus disease was its downfall. Almost the entire population was destroyed, leaving only occasional saplings to grow from old stumps. The ones I found were likely some of these saplings that grew large enough to produce chestnuts. Unfortunately, I saw signs of the disease on these trees, and soon they too will probably die. If we're lucky, maybe someday the surviving chestnuts will become resistant to the fungus and once again grow to their full glory. —DGP Stephen A. Kleiner, Waynesburg.

## Naturally Inquisitive

**VENANGO COUNTY**—I've become more aware of nature because of the questions my 3-year-old daughter asks. She has a way of noticing things I take for granted. I'm still trying to explain bird migration and that they will be back, and why birds don't store nuts like chipmunks do (a project she helped them with). I asked the same questions when I was young. Now I just hope I'm giving the same answers. —DGP Len Hribar, Oil City.

## Doubling Up

**WAYNE COUNTY**—Deputy Mark Beezup has been walking around with his chest puffed up ever since he responded to a beaver complaint and caught two beavers on each of two consecutive nights with only one live trap. All my other deputies are calling him, "Two-at-a-time Beezup." —DGP Donald R. Schauer, Honesdale.



## Skunked

**ERIE COUNTY**—Getting rid of a nuisance skunk can require some forethought. A homeowner recently told me how he tried to frighten some skunks from his yard (they were digging up the sod) by setting his baby's teddy bear out on the lawn. Apparently it worked. The skunks were frightened and the teddy bear was soaked with spray. The property owner not only had to replace the damaged sod, but also the teddy bear. —DGP Andy Martin, Erie.

## Remember That

**TRAINING SCHOOL**—As trainees we are required to perform some daily domestic details such as dusting, mopping, waxing, etc. The class recently went on a field trip, during which we spent the night in a hotel. The majority of the class agreed that one of the best things about the trip was sleeping in a bed that we didn't have to make in the morning. —T. M. Grenoble.



Paul C. Weikel



Harvey A. Roberts

## Roberts Retires, Weikel New Deputy Director

**T**HE CHIEF of the Pennsylvania Game Commission's Federal-State Coordination Division has been selected as the agency's new deputy executive director. Paul C. Weikel, 41, an 18-year veteran with the Commission, was named to succeed Harvey A. Roberts, who will retire in January.

In his new role as deputy director, Weikel will be responsible for coordinating programs within the Bureaus of Land Management, Law Enforcement, Game Management and Research, Information and Education, Administration, and Management Information Systems.

In announcing Weikel's appointment, Executive Director Peter S. Duncan noted, "Paul Weikel brings to his new position the breadth of experience, judgment and management skills necessary to help keep the Pennsylvania Game Commission at the forefront of wildlife management in the United States. The selection proc-

ess was intensely competitive, and the Commission is proud to have chosen a person of Mr. Weikel's demonstrated skills and abilities."

Weikel joined the Game Commission in 1967 after earning a degree in forestry from Penn State. Following military leave, he returned to the agency and later was assigned to the southeast division at Reading. In 1981, he was promoted and transferred to





Commission headquarters in Harrisburg, as coordinator of state and federal programs.

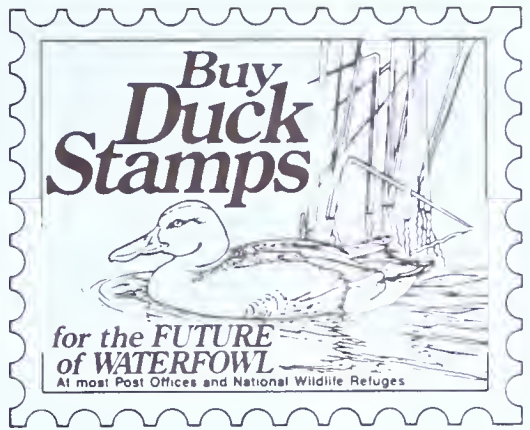
In 1984, Weikel's position was upgraded to chief of the Federal-State Coordination Division. In that role, Weikel acted as liaison between the Commission and the Department of Environmental Resources, National Park Service, U.S. Department of Agriculture, Army Corps of Engineers, Federal Energy Regulatory Commission, and the Allegheny National Forest. Weikel also represents the Game Commission on several state boards and committees, including the Pennsylvania Scenic Rivers Task Force, State Recreation Planning Advisory Board, State Water Resources Coordinating Committee, and the Northcentral Highlands Forum.

In addition to his Penn State degree, Weikel is also a graduate of Army Officers Candidate School at Fort Benning, Georgia. He served one year in Vietnam, first as a platoon leader and later as an acting troop commander. He was discharged in 1970 with the rank of 1st lieutenant.

The son of Mrs. Flossie Weikel and the late Roland Weikel of Shamokin, Weikel is married to the former Linda Meyer of Media. They have two children, Terra and Jeremy, and reside near Halifax in northern Dauphin County.

Harvey Roberts will retire on January 31 following a distinguished 38-year career in wildlife management. He holds undergraduate and graduate degrees in wildlife management from the University of Alaska.

Commenting on Roberts' retire-



ment, Executive Director Duncan stated, "Harvey Roberts has been an inspiration to everyone in the Game Commission family. His shoes will be hard to fill. His professional integrity is without challenge, for he has always represented the highest standards of wildlife science. He is a pioneer in modern wildlife management who has served in many important capacities, always with distinction. His guidance and wise counsel have been especially important during my tenure as director."

Roberts joined the Game Commission in 1948. He served as a biologist until 1959, when he was named chief of the Wildlife Research Division. He has done extensive scientific studies on wild turkeys, white-tailed deer, and small non-game mammals.

In 1970, Roberts was promoted to chief of the Land Management Division, where he was responsible for wildlife habitat on more than 1.2 million acres of State Game Lands. Two years later, in 1972, he was named deputy executive director, the position he held for the past 13 years.

## Year of the Forest

A commemorative packet is being produced to recognize 1986 as "The Year of the Forest." Each packet contains a calendar of special events and activities, two 4-year-old hemlock seedlings 12-14 inches tall and ready for planting, a Year of the Forest bumper sticker, and an artistic reproduction of the 1931 proclamation that designated the hemlock as Pennsylvania's state tree. Packets are \$6.30 each. They will be delivered in late April in time for planting. Order from: Year of the Forests, c/o Strathmeyer Forests, RD 1, Box 247, Zeigler Road, Dover, PA 17315.



# Pennsylvania Game Commission Retirees



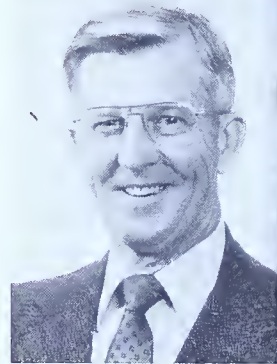
**M. C. OVERMILLER**  
Purchasing Agent  
Middletown  
12-14-64 - 12-31-85



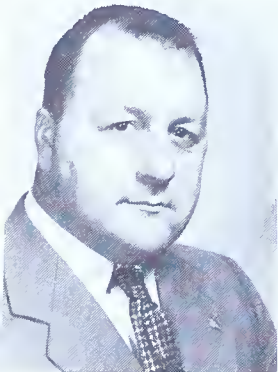
**G. E. GIBSON**  
Land Manager  
Corry  
3-25-68 - 12-31-85



**D. C. PARR, SR.**  
Land Manager  
Tidioute  
9-4-51 - 12-31-84



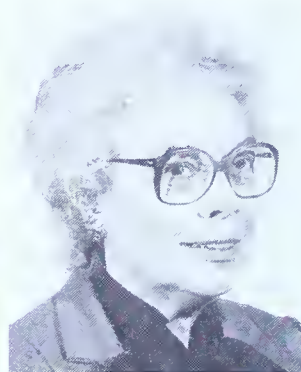
**S. A. LISCINSKY**  
Biologist Coordinator  
State College  
9-12-51 - 12-31-85



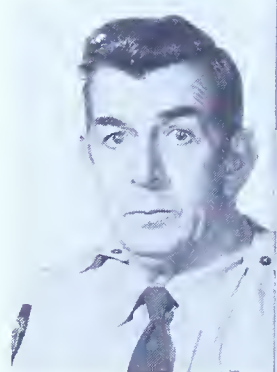
**J. D. MOYLE**  
Law Enforcement Supv.  
Lewistown  
7-1-58 - 12-31-85



**J. L. SWARTZLANDER**  
Labor Foreman I  
Luthersburg  
11-25-49 - 1-11-85



**M. E. BRINSER**  
Clerk-Steno. 3  
Harrisburg  
5-22-63 - 12-31-85



**L. MILFORD**  
Game Protector  
Ridgway  
5-25-52 - 6-7-85



**E. R. OLLEY**  
Stock Clerk 3  
Kulpmont  
2-18-71 - 12-31-85



**H. YOUNG**  
Howard Nursery  
Howard  
4-1-65 - 6-28-85



**C. HERTZ**  
Game Protector  
Marion Center  
5-25-52 - 12-31-85



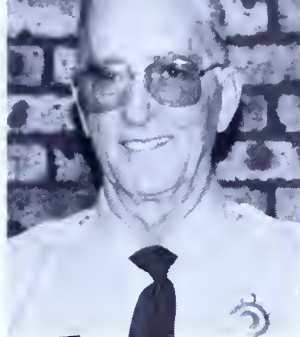
**J. A. BADGER**  
I&E Supervisor  
Ligonier  
7-1-58 - 12-31-85



**S. V. HIGGINS**  
Game Propagator 2  
Montoursville  
6-2-49—1-11-85



**M. G. DARR**  
Clerical Supervisor 1  
Alexandria  
4-16-54—12-31-85



**J. BURNS, JR.**  
Game Protector  
Central City  
6-30-56—12-31-85



**H. M. MURPHY**  
Semi-Skilled Laborer  
Patton  
10-27-64—4-5-85

The following employees have also recently retired: Hugh L. Clemons, Jonestown; Paul A. Loder, Howard; Raymond A. Ghering, Meadville; Eugene M. Latchaw, Polk; William E. Mearkle, Everett; Donald M. O'Neil, Cranberry; Fred R. Quick, Gouldsboro; Clarence A. Rutter, Mapleton; J. Richard Shelly, Manheim; Willis Silvis, Brookville; Otis P. Snook, McClure; John A. Steward, Brookville.



**C. W. MAGEE**  
Labor Foreman 1  
Newburg  
6-23-69—12-31-85



**H. R. PRATT**  
Game Farm Supt. 1  
Meadville  
10-5-50—1-11-85

## 1984 Game Take Survey

By W. K. Shope, Wildlife Biologist

**A**S PART of the Game Commission's ongoing efforts to evaluate small game harvests and hunter success, approximately two percent of 1984's licensed hunters were surveyed in early 1985. They were asked to summarize their hunting activities and kills. Similar surveys have been conducted annually since 1971, and the results have been regularly published in **GAME NEWS**.

The survey procedure was modified slightly this time. Unlike past surveys, follow-up mailings were made to nonrespondents. It's felt that the active and successful hunters are more likely to respond to a single request for information than those less dedicated and successful. Consequently, estimates based on single contacts tend to be inflated.

To remedy this bias, three follow-up mailings were made to nonrespondents to measure and correct for nonresponse bias. These mailings were made at four-week intervals. Although this new procedure is more time consuming—and largely the reason for the delay in getting this report in the magazine—it provides a much more precise estimate of small game harvests and hunter success. This nonresponse bias factor has been incorporated into both the 1983 and 1984 estimates in this report.

With the exception of raccoon harvests, all 1984 small game harvests and hunter participation estimates were below 1983 levels (Table 1). To clarify what appears to be a rather dismal note, what this means is that it appears fewer animals were taken, but because fewer hunters were afield. The average takes for key species by participating hunters was up for rabbits, squirrels, grouse, woodcock, and dove (Table 2). The average harvests for pheasant and geese were about the same as in 1983. The average take for ducks was down. Despite the fact the average take for ducks was down from the 1983 level, the average take for 1984 was the second highest in the past 6 years.



**Table 1.**  
**A comparison of the 1983 and 1984 small game and furbearer harvests and the number of hunters pursuing various small game species.**

<i>Species</i>	<i>Estimated Harvest</i>		<i>Estimated Participants</i>	
	<i>1983</i>	<i>1984</i>	<i>1983</i>	<i>1984</i>
Spring Turkey	10,852	9,723	225,982	209,717
Fall Turkey	20,494	15,844	367,657	322,347
Rabbits	2,156,565	1,939,399	738,970	626,892
Pheasants	688,250	512,301	677,508	505,694
Grouse	493,737	475,960	471,640	419,367
Squirrel	2,259,320	2,256,311	614,324	525,670
Woodcock	186,319	170,296	148,887	120,643
Quail	26,152	24,984	35,136	29,428
Dove	1,690,158	1,402,180	203,412	152,243
Geese	68,333	64,452	70,019	66,406
Ducks	251,171	224,728	80,518	76,167
Hare	10,867	13,989	28,960	27,133
Raccoon	449,499	495,106	72,054	49,870*
Muskrat	575,530	621,111		**
Red Fox	88,643	75,532		**
Gray Fox	64,754	66,975		**
Opposum	339,436	339,294		**
Skunk	86,769	72,050		**
Mink	13,089	23,627		**

\* Estimated number of raccoon hunters, does not include trappers.

\*\* The estimated number of trappers in 1984 is 82,498.

Long term trend information for species surveyed since 1971 is shown in Table 3. Most harvests are continuing to fluctuate within normal ranges. Ring-necked pheasant harvests, however, continue to show a declining trend. Roadside counts of pheasants made on wildlife survey routes, started in 1982, have also indicated a decline. Declines in both harvests and census data indicate a serious drop in the pheasant population over the past 15 years.

Although little research has been conducted to determine the cause of the pheasant decline in Pennsylvania, research has been conducted in the Midwest where similar pheasant population declines are being experienced. Strong correlations between increasing acreages of rowcrops, such as corn and soybeans, and declining survival rates of pheasant chicks up to 6 weeks of age has been found. Pheasant brood movements studied through the use of radio telemetry indicate that during the first six weeks of their lives broods move over significantly greater areas in row crop monocultures than in more diverse habitats.

On an area basis, rowcrop monocultures contain significantly fewer insects than more diverse farming situations. In addition, there has been an increase in insecticide and herbicide use associated with the increase in row crops. Insecticides, of course, directly affect chick food supplies by reducing insect populations. Herbicides indirectly

**Table 2.**  
**Average harvests for hunters who hunted specific species for the last 6 years.**

<i>Species</i>	<i>1979</i>	<i>1980</i>	<i>1981</i>	<i>1982</i>	<i>1983</i>	<i>1984</i>
Rabbits	2.52	3.07	3.22	3.21	2.92	3.09
Pheasants	1.21	1.19	1.11	1.10	1.02	1.01
Squirrels	3.36	3.71	4.03	4.30	3.68	4.29
Dove	6.98	7.26	8.24	8.02	8.96	9.21
Woodcock	1.11	1.04	1.54	1.54	1.25	1.41
Grouse	0.82	0.92	1.15	1.23	1.05	1.14
Duck	2.14	1.97	2.57	2.83	3.12	2.95
Geese	0.51	0.56	0.85	1.01	0.98	0.97



**Table 3.**  
**Small game harvest trends of major small game species since 1971.**

<i>Year</i>	<i>Rabbits</i>	<i>Pheasants</i>	<i>Grouse</i>	<i>Turkey</i>
1971	2,727,744	1,323,675	355,417	43,927
1972	3,032,814	1,310,058	291,249	36,384
1973	2,742,085	1,209,191	246,295	32,389
1974	2,696,911	1,016,161	226,847	No estimate
1975	2,539,124	1,020,954	273,929	30,733
1976	2,604,767	1,020,397	268,003	37,018
1977	2,295,165	836,686	348,407	38,229
1978*	1,351,000	765,000	270,000	32,000
1979	2,032,429	900,781	471,986	27,838
1980	2,566,406	917,490	509,605	49,439
1981	2,699,860	848,458	655,340	37,909
1982	2,576,967	785,914	688,564	42,652
1983	2,156,565	688,250	493,737	31,346
1984	1,939,399	512,301	475,960	25,567

	<i>Dove</i>	<i>Woodcock</i>	<i>Squirrel</i>
1971	1,031,129	357,341	2,545,555
1972	1,107,646	210,284	2,482,926
1973	No estimate	260,369	2,092,335
1974	964,835	193,073	1,979,933
1975	1,133,813	224,951	2,204,502
1976	1,178,329	228,341	1,880,841
1977	1,263,930	211,708	1,977,275
1978*	1,075,000	201,000	2,213,000
1979	1,457,090	244,054	2,243,553
1980	1,659,922	236,461	2,581,924
1981	1,837,645	263,260	3,030,608
1982	1,673,955	236,360	2,929,614
1983	1,690,158	186,319	2,259,320
1984	1,402,180	170,296	2,256,311

\*Numbers rounded to nearest thousand.

reduce insect supplies by reducing insect habitat diversity. As a consequence, hens and broods are forced to move over much larger areas in monocultures which, of course, increases exposure of the chicks to the hazards of life. The end result is poorer chick survival.

For the layman the pheasant problem can be stated in some very simple terms: there are more hen pheasants dying than are being produced and surviving to produce young of their own. Since nature sets the limits on the reproductive capabilities of a species, the solution to the problem lies in improving survival. More specifically, survival of chicks must be improved. Improving adult survival is beneficial only if current chick survival rates do not decline. With limited brood range it is not likely that improving adult survival will help if the amount and quality of the present brood range will support only a fixed number of chicks. If only a certain number of chicks can be supported, then it makes little difference if more chicks are produced because the increased number of chicks will have lower survival.

The game take survey is a reliable method for monitoring trends in small game populations, and the effectiveness of harvest regulations and other management programs such as those being applied to the solution of the ring-necked pheasant problem.

Another survey will be run for the 1985-86 season. Sometime after March, 1986, licensed hunters whose backtag numbers end in 01 or 51 will be contacted for information on their 1985-86 harvests. I encourage all of you who receive a 1985-86 questionnaire to answer it even if you killed nothing. Your answers are necessary to measure harvests and the success or failure of management activities undertaken by the Commission.

# The Simple Pleasures

**A**H, THE pleasures of the hunt. No, none of that quasi-philosophical, semi-romantic stuff, but the simpler, more human joys everyone experiences but seldom praises. I'm speaking of those enjoyable, little-mentioned things we do on a hunt, like, for instance . . .

**Sleeping in the Woods** This doesn't include falling asleep in the car in the Game Lands parking lot or planned backpacking. But one of the more pleasurable parts of a long afternoon in the woods is to do what feels natural and take a nap. The chill of morning is gone and the sun, even in winter, warms comfortably. You can feel that the pace of wildlife has slackened too. Deer are bedded, squirrels and turkeys are resting, even the chipmunks and birds have taken a break. So, for someone who's use to the drone of traffic, this shut-eye is going to be a treat.

There are two ways to snooze in the woods. The first is to sack out wherever a hunter finds himself, just stretch out on the bumpy, rocky, soggy ground, without so much as a tree root for a pillow. A good no-frills woods sleeper can lie down in the snow and just trust to his wool or fiberfill coat to keep out the wet until he awakes. One young fellow I knew was very good at this, even in the coldest deer season. One day he dozed off and when he awoke, some time later, there were three sets of fresh deer tracks in the snow, not ten steps in front of him. He maintained they were probably a doe and fawns; we all told him they were the three biggest bucks on the mountain.

I'm an elaborate woods sleeper. I prepare for a nap. I clear a spot of twigs and stones and spiders, roll up my sweater for a pillow, and pull my hat over my eyes. I keep inching along, though, as the sun moves, and have been known to start sliding down the hill. For a long time, I was a poor

woods snoozer. I'd keep two eyes closed, but both ears open, and the smallest noise—even chipmunks chirping and songbirds cheeping would awaken me.

But I'm getting better. Or is it worse? I couldn't keep my eyes open on a morning archery stand, and finally gave it up. I sat on a log, propped my back against a tree and let my head drop onto my arms. I was just going to rest my eyes a minute. But I went deep and one of those dreams of falling startled me awake when I hit bottom. I must have actually jumped, because a deer's snort brought me instantly to my senses again. My sudden movement had spooked it. The sorry thing was, it had already walked to within 20 yards of me, when I frightened it away. I wonder if I snored.

**Eating in the Woods** I know some hunters whose days afield are self-imposed fasts. Too eager, or too lazy to make a sandwich, they're grouchy and ravenous by the time they reach the car at dark. And woe to any riding companions with a sandwich they saved for themselves. The other kind of woods eaters make a day's hunt an excuse for a banquet. One group of my acquaintance won't miss an opening day of buck season, but by nine in the morning they're all back at the truck, where the cook has the tailgate down and is already making bacon and eggs on the propane stove. This might not put venison in the freezer, unless deer take a sudden liking to the aroma of

## Another View...

by Linda Steiner

brewing coffee, but you can't tell these hunters they're not having fun.

I like my woods meals in between these two extremes. Hunting lunches are a special part of the day, whether eaten alone or with the gang. When I'm picnicking solo, I like to find a spot that's both picturesque and comfortable, the sunlight coming over the ridge just so, a wide log that makes a natural seat, and I keep to gamey-looking cover. If any of those old jokes about the buck appearing just as the hunter bites into his sandwich come true, I want to be prepared. That one meal in the forest always seems to make a day trip more of an adventure, like I'm actually living in the woods. And when the coffee is poured steaming and deliciously fragrant in the frosty air, what more could anyone ask for?

The lunch break is a great pick-me-up to boost spirits for the afternoon's hunting hours, especially if the morning has been unproductive. Wherever we're hunting, our group knows exactly where the "lunch rock" or "lunch log" is, because it's the same regrouping spot year after year. It's a place to share goodies and relate the morning's happenings, and we all straggle in at noon or so, although the meeting is never planned. But the truth is that the lunch gathering is an important part of the fun of the day.

My brother-in-law has been sharing his peanut butter sandwiches with an unknown hunter every buck season opener for the last five years. The other fellow manages to saunter past about midday and just happens to mention he hasn't packed a lunch. Scott says it is getting to where he feels the day isn't complete unless the guy comes by and cons him out of a sandwich. Last year, though, the hunter finally asked if Scott didn't have anything besides peanut butter. Perhaps next year he'll keep hiking, looking for a ham and cheese.

**Getting Dirty** Though I'm not a fashion plate, I don't go shopping in grubby clothes or with grimy finger-



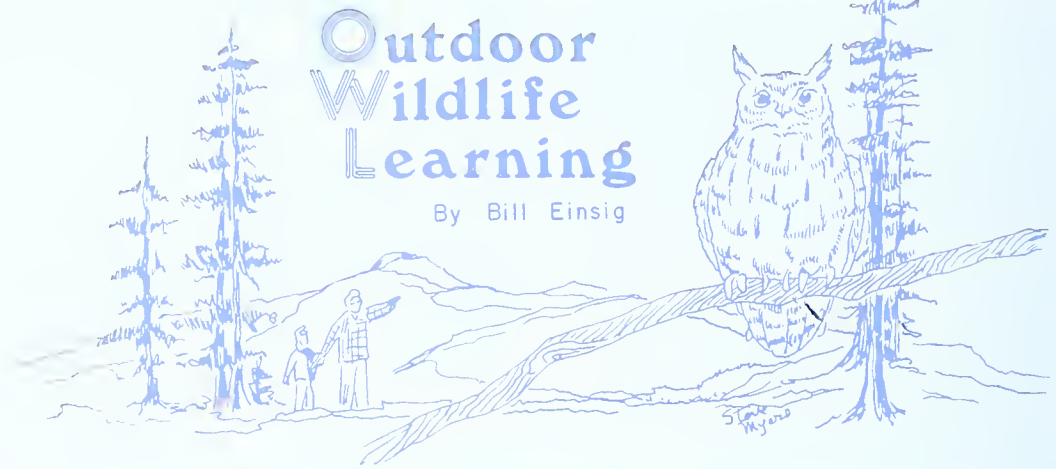
Photo by Bob Steiner

**LINDA STEINER and Tim McLaughlin of Cooperstown take lunch break during small game hunt.**

nails. I like being neat and clean when I'm in the "civilized" world. But one of the unsung pleasures of hunting is acting like a kid again, in that it's okay to get dirty. I can sit on the ground, on a mossy log, scramble over rocks and fall in the mud, and I don't have to feel guilty or brush myself off. I can shove my hair under a hat, combed or not, and forget makeup for a day. Unlike my street clothes, where an unremendable tear, an unremovable stain or the fading of long wear would make them fit only for the rag-bag, my hunting togs, which have all of these, are still perfectly appropriate woods attire. And part of the fun is that I wouldn't want them any other way.

**Dry Socks** This may seem like an unlikely pleasure of hunting, but the reverse, spending the entire day with damp, chilled feet, has to be one of the sport's biggest miseries. To remedy the result of trudging around all morning in rubber boots, I stuff an extra pair of socks between my belt and my shirt, in the small of my back. They have no real weight or bulk, and keep me warm across my kidneys. Plus they stay toasty until needed. Packing extra socks is worth the bother as a morale booster when cold feet, in the literal sense, start to take the edge off enjoying the day. And, after all, it's the simple, sometimes overlooked things that add up to a good time in the field.





## 1986: The Year of the Forest

**N**O MATTER where you live in Pennsylvania, forests are an important part of your life each day. You may look from the kitchen window of your rural home and see a nearby forested ridge or, from a window in the suburbs, you may see only the gleam of an apartment complex next door. Forests reach us, and touch us, wherever we may live.

Forests annually supply the raw materials for over 5000 products worth more than \$23 million. Many of these products are common items that we might not even associate with forests.

Each year, our nation's forests produce over a half-million barrels of turpentine, 30 million railroad ties, and 200 million fenceposts. A quarter-million tons of napkins, a million tons of paper bags, and two million tons of both newsprint and writing paper are also manufactured each year.

The amount of paper we consume is staggering. The paper industry estimates that 530 pounds of paper are used each year for every person in the United States. Citizens of the Soviet Union use only 50 pounds of paper each year, while China uses a mere 10 pounds per person. From tissues to wall coverings, paper in one form or another surrounds us.

All that paper comes from forests. About 25 percent of the fiber needed to satisfy our paper needs comes from recycled paper. The other 75 percent comes from new pulp wood.

One cord of wood can produce about one ton of paper. If you heat your home with a wood stove and burn four cords per year, you consume enough wood fiber to

produce a year's supply of paper for sixteen Americans—or 800 Chinese.

Our use of lumber is equally monumental. In one study done a number of years ago, each American was found to use an average of 204 board feet of lumber a year. As a nation we annually use more than 37.3 billion board feet. Numbers like this are difficult to comprehend so picture it this way. That amount of lumber would build seventy four-foot-wide boardwalks from the earth to the moon.

Forests also have recreational value. They are places where many of us go to find a different, slower pace. We find some degree of solitude that helps us to restore perspective on the really important things and to enjoy healthful relaxation.

We often forget, however, that such relaxation costs money. We pay for food, transportation and lodging when we go to the woods, and we typically buy more equipment than we really need.

A good example comes from sportsmen who hunt big game in Pennsylvania. A recent survey by the U.S. Fish and Wildlife Service and the Census Bureau showed that more than one million big game hunters spent nearly \$170 million to hunt big game here. That's an average of more than \$160 per hunter pumped into the state's economy through purchases of firearms, clothing, food, gasoline and other equipment related to the sport.

Big game hunting in this state is primarily a forest sport. Without forests, we wouldn't have the kind of hunting we have today.

Of course, many nonhunters enjoy the

forest too, and they also spend money. They buy cameras, film, spotting scopes and binoculars. They also need food, places to stay, and gasoline to prowl the back roads in search of fall leaves, trailing arbutus or pileated woodpeckers.

Someone has estimated that 75 percent of the forested land in this country in 1492 is forested today. The other 25 percent has been converted to farm fields, lawns, shopping malls and other such civilized areas. It's amazing, and reassuring, that after 500 years, during which time our population has grown to more than 220 million, our forests are still so extensive and productive. That's a tribute to wise management.

There are, unfortunately, folks who look at the forest and see wasteland waiting for progress. They see highways designed to bring people conveniently closer to the nature the highways themselves destroy.

They see building lots for more cabins, second homes, and mountain resorts. They use giant yellow erasers of cleated tracks to wipe away the forests and build neat landscapes that mirror those the vacationers are vacationing from. Meanwhile, the forest wildlife invariably loses.

"What good is it?" they ask. Aldo Leopold had an answer for that question over thirty years ago in his essay "The Round River."

"The last word in ignorance is the man who says of any animal or plant, What good is it? If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of aeons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering."

Forest Resource Wordfind

Ready for a real challenge? There are 36 resources hidden in this wordfind. Words can be reversed or on any diagonal as well as across or vertical, and at least one of the terms actually goes around a corner. Good Luck!

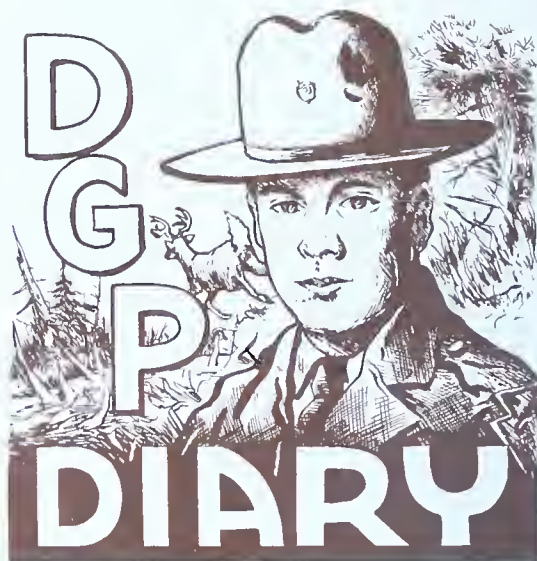
LUMBER	SWIMMING	ACETIC ACID	FISHING
PULP	BOATING	PHOTOFILM	CONTROLS FLOODS
TELEPHONE POLES	HUNTING	MAPLE SYRUP	HABITAT
PLYWOOD	OWLS	CELLOPHANE	BLACKBEARS
VENEER	DEER	NAPKINS	WOODPECKER
NEWSPRINT	BEAVER	PAPERBAGS	BLUEBERRIES
TISSUE	HICKORY NUTS	TOOTHPICKS	PANELS
FIREWOOD	EROSION CONTROL	HIKING	PORCUPINE
CAMPING	TURPENTINE	PHOTOGRAPHY	SNAG

E	R	M	O	M	L	I	F	O	T	O	H	P	J	Y	B	L	U	E	B	E	R	R	I	E	S
N	C	N	A	P	K	I	N	S	P	W	I	S	D	T	E	K	I	R	G	E	G	B	G	A	W
A	C	V	B	U	J	A	E	B	L	A	C	K	B	E	A	R	S	R	K	D	R	N	A	C	I
H	R	E	O	L	G	V	P	O	Y	W	K	W	F	L	V	G	H	C	D	I	I	F	H	E	M
P	E	N	N	P	F	I	T	A	W	H	O	K	R	E	E	D	E	G	K	T	L	O	E	T	M
O	C	E	L	I	D	A	R	T	O	U	R	A	Z	P	R	P	Y	N	N	D	O	M	E	I	I
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C	E	A	C	I	N	U	A	P	O	L	T	W	E	E	G	N	I	P	M	A	C	F	H	I	I
P	H	R	E	T	G	I	C	N	R	R	S	E	I	P	A	N	E	L	S	Y	R	U	S	D	A
U	S	A	L	U	M	B	E	R	P	U	L	D	O	O	W	E	R	I	F	I	R	R	I	O	D
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Y	H	P	A	R	G	O	T	O	H	P	H	G	N	E	W	S	P	R	I	N	T	N	T	R	O
S	E	L	P	A	M	T	I	S	S	U	E	W	B	S	G	A	B	R	E	P	A	P	L	Y	W

**W**ELCOME to Chester County and the Game Commission's Southeast Region. Chester County, although on the doorstep of Philadelphia, has managed to maintain a rural flavor in spite of encroaching urbanization. Our rolling green hills, abundant woodlots, and tranquil farms support populations of almost all of the commonwealth's wildlife species. Beaver, mink, and an occasional river otter can be found in our streams and marshes. Bobwhite quail, ring-necked pheasants, ruffed grouse, and wild turkeys maintain breeding populations of varying degrees. Bald eagles and ospreys spend time here, and we even boast a healthy population of bluebirds. About the only species we don't find are porcupines, bobcats, coyotes, elk, and black bear. And it wouldn't surprise me if one of these showed up someday.

January in southern Chester County is busy. Although the hunting season is over in many of our northern tier counties, ample numbers of gunners are still afield in the southeast, pursuing rabbits, squirrels, and geese. Add to this cases that need to be wrapped up and a January deer season that opens in the state of Delaware along my southern border and, well, you can see how things can remain pretty hectic.

*January 2*—I started the new year by meeting Game Protector Cheryl Trewella at her home in Quakertown, Bucks County. Together, we made the long trip to the Northcentral Regional Office in Jersey Shore. Game protectors from all across the state gathered there for a briefing by Leo Badger of the U.S. Fish and Wildlife Service and members of our Harrisburg law enforcement staff. For the past two years, undercover officers from both agencies have been infiltrating known black market wildlife operations throughout the state. They have been concentrating on the illegal commercialization of striped bass and deer, but also have purchased unlawfully taken waterfowl, songbirds, upland game birds, parts of bald and golden eagles, and a whole host of other wildlife species. Offers of sale have also been made regarding drugs and illegal firearms. Since everyone present will be participating in the final takedown, we were briefed on the entire operation, were broken down into strike teams, and were given an opportunity to review the file folders on our respective assign-



**By Keith Sanford**

**District Game Protector  
Chester County**

ments. As we left the meeting, we were reminded that the information we had received was to remain confidential.

*January 3*—I spent the majority of the day working on monthly and deputy reports and returning phone calls. In the evening, I traveled to DGP Ed Gosnell's district in Lancaster County. Ed was busy on another investigation, so I was asked to assist one of his deputies, Steve Hess, with a deer case. Steve had received information concerning an individual who allegedly had killed an antlerless deer prior to the opening of the season. He had already interviewed the suspect once; in fact, he had marked several suspected packages of venison as evidence. Our purpose this evening was to retrieve the packages of meat so they could be analyzed by the State Police Crime Lab. When we arrived, we learned that the meat had been removed from the premises, contrary to Steve's instructions. We interviewed the suspect again and left without filing any charges, wanting to investigate the matter further. On our way home, Steve informed me that he had been putting together another case—one which involved deer and license violations by several individuals from both Lancaster and Chester counties, as well as Cecil County, Maryland.

*January 4*—I spent the morning patrol-



ling for small game and goose hunters in New Garden, Kennett, and Pennsbury townships, but found little activity. In the evening, Deputies Carus Haupt and Pete Aiken met me at the State Police Barracks in Avondale. We have an excellent working relationship with the troopers and personnel there, and frequently use their building to settle violations. While I completed field receipts on several persons apprehended for license violations, Cary and Pete interviewed another individual suspected of killing a buck before the season opener last fall. Our informant had proven reliable in the past and we had every reason to believe his information was correct this time. Before I could finish my paperwork, Cary was back in the office to tell me our suspect had admitted to the violation. We informed the defendant he would be charged with killing an antlered deer in closed season and discussed with him the manner in which the fine could be settled. He preferred to settle the matter on a field acknowledgement of guilt, so a date and time to do this was arranged.

*January 5*—I spent the morning patrolling again, without finding much in the way of hunter activity. In the evening, I went back to the State Police barracks in Avondale to settle another fine, this time with Deputy James Valentino. While I was away over Christmas, Jim received a call regarding a pack of dogs which had pulled down a 9-point buck in the Unionville area. Through the cooperation of the informant and Jim's diligence, they were able to locate three of the dogs. All still had wet deer blood on their fur. How many times do we have to repeat the message? Dogs are supposed to remain under control at all times and should not be allowed to run at large.

*January 6*—This morning I met Regional Director Jim Williams at the Stone Barn outside of Unionville, where we attended the Southeast Division meeting of the Pennsylvania Federation of Sportsmen's Clubs. Jim showed the Game Commission's slide presentation on the proposed hunting license fee increase. The bulk of the Commission's revenue comes from the sale of hunting licenses and it's through these monies that we are able to manage the state's wildlife resources. The majority of those in attendance agreed that the license increase was warranted and backed the Commission's proposal.

*January 7*—I spent the morning in the office but managed to get out in the afternoon to patrol the South Coatesville, Modena, and West Chester areas. In the evening, the defendant from our deer case three nights ago met me at the police station in Coatesville to settle his fine. In addition to the \$200 penalty, he was required to relinquish all of the remaining venison from the deer and lost his hunting and trapping privileges in Pennsylvania for three years.

*January 10*—Spent the day at our Regional Office in Reading, meeting with personnel from the Harrisburg Bureau of Law Enforcement staff. Assistant Director Harry Nolf and I reviewed the case which I was assigned to handle during our upcoming sting operation. After a lengthy discussion, we agreed that the case was weak and decided not to prosecute the individuals involved. In law enforcement, whether it be wildlife, criminal, or traffic, you've got to sweat the details. In this particular situation, we felt additional information could be gathered which would strengthen our case and make prosecution in the future much easier.

*January 11 and 12*—Spent both days patrolling. While in the West Chester area, met with a local constable regarding a pair of arrest warrants I had received from DGP Dick Feaster in Delaware County. The constable knew one of the defendants and agreed to serve them.

*January 14*—This morning, I traveled to the Game Commission's Middle Creek Wildlife Management Area in Lancaster County for one final meeting prior to our takedown. I found the auditorium packed with federal and state conservation officers. Federal agents, I learned, had been flown in from as far away as Alaska. I was informed that I'd been assigned to another case. In fact, I will be assisting Game Protector Lou Fortman, my neighboring officer in Chester County. One of the undercover officers had purchased an illegal deer from an individual in the Exton area who said that more could be obtained in the future. When the meeting broke up, Lou and I headed to West Chester where we spent the rest of the day meeting with Chester County District Attorney James MacElree and District Justice John Blackburn. We had reason to believe that more illegal venison was stored at our suspect's

residence, so with the assistance of the district attorney and Mr. Blackburn, completed the necessary paperwork and obtained a search warrant.

*January 16*—Today was the culmination of two years of hard work. I met DGP Fortman and Deputy William Buckley at 4:30 a.m. to begin a long day. Precisely at 6 a.m., teams of federal and state wildlife officers in eleven northeastern as well as one western state began serving arrest warrants and issuing criminal citations to over 135 individuals involved in the illegal killing and sale of wildlife. At the designated time, the three of us were at our suspect's home. Unfortunately though, he wasn't. After talking to his roommates, they agreed to phone him, and within an hour we were able to begin our interrogation. Once our suspect realized how much we knew, he admitted to selling one deer and possessing several other illegal whitetails. By the time we collected the necessary evidence and Lou discussed the various charges with the defendant, it was early afternoon. When we reported in to the Harrisburg command post, we learned that most all of the strike teams had experienced success similar to ours. By the time I arrived home at 5 p.m., all of the local radio and television stations were alive with news about the takedown. After a bite to eat, I finished the day by picking up two roadkilled deer in East Bradford and Kennett townships.

*January 17 and 18*—Delaware's late shotgun deer season opened on Monday, but with the undercover operation going full blast I hadn't had a chance to patrol the townships along the state line. I spent both days in Pennsbury, London Britain, Kennett, and New Garden townships, making sure that Delaware's deer hunters stayed within the boundaries of our "First" state.

On the evening of the 18th, I settled a fine at the Coatesville Police Station with an individual who was apprehended trapping while his privilege to do so had been revoked. Not only was he penalized for that violation, but he also was fined for possessing eight raccoons unlawfully taken. Section 316a of the Game Law makes it unlawful to take or kill any wildlife without first obtaining a legal hunting license. In addition to the monetary penalty, the defendant has his Pennsylvania hunting and trapping privileges revoked

for an additional two years when he is found guilty.

*January 25*—I was at the State Police barracks in Avondale by 8 a.m. to meet a representative from the Brandywine Conservancy. With the aid of the State Police, we conducted an aerial survey of the deer herd on the Conservancy's newly acquired property in Newlin, East Fallowfield, and West Marlborough townships. The area has been open to limited deer hunting in the past and the new owners were trying to determine if the practice should continue on the 1000-acre parcel of mixed pasture and woodland.

*January 28 and 29*—I spent these two days meeting with license issuing agents throughout the district. Each year, I pick up all completed license applications from each of my agents and keep them on file for one year. You never know when you might have to refer to one.

*January 30*—I have a hearing coming up on the first of February involving an individual I've cited for taking two deer in one license year. I met with one of my witnesses this morning to review the case and brief him on courtroom procedures. In the evening, Deputy Pete Aiken and I traveled to Newark, Delaware, to meet with Delaware Conservation Officer Terry Yingling. During the past deer season, Pete had arrested an individual who, by all outward appearances, was a resident of Pennsylvania. But when the defendant failed to respond to a citation, we learned he was actually a resident of Delaware and had been hunting on a resident Pennsylvania license, giving us additional charges to file. After we picked up Terry, the three of us traveled to New Castle, where we hoped to find the defendant at home. Luck wasn't with us, so all we can do is hope we are able to pick up the defendant the next time he comes into Pennsylvania.

*January 31*—I began the day by getting an early start on my monthly reports. In the afternoon, I drove to our Reading office where I had some maintenance work done on my Commission two-way radio. I finished the day by meeting with Deputy Larry Henck. Larry will be a key witness in my hearing tomorrow, and I want to review the case with him prior to entering the courtroom.



ALL DAY the mercury fell and the wind rose. At dusk, the wind howled past the eaves and made the trees groan and creak. The rafters popped as they shrank from the cold. When we woke the next morning, the wind was whipping snow across the ground. I opened the door a crack and peered out. My eyes watered in the cold, the hairs in my nostrils crackling. The thermometer stood at 20 below.

That day, as I sat by the woodstove, I found myself thinking about the animals. The hibernators. The ones who tuck down into holes and brushpiles and caves and cracks, and fall into what writers delight in calling "a deathlike trance." In this state of suspended animation, the hibernators coast through the frozen months, while outside, other creatures are scouring the land for food, trying desperately to keep their internal fires burning.

Spiders—those that do not winter in the egg—crawl into the leaf duff on the forest floor or under a board or a loose chunk of bark, and wait. Their bodies must possess some kind of anti-freeze, or else the water inside—in cells, in organs, in blood—would freeze and, so to speak, burst the pipes.

### Under Bark

Mourning-cloaks, tortoise shells, painted ladies, and red admirals, which are butterflies, hibernate under bark and in the sheds and other buildings. One winter I had a tortoise shell in residence in an upstairs room of my house. On warm days, it fluttered fitfully against the window glass. Apparently the house's warmth—life-preserving for me—was not to the tortoise shell's advantage. Some time in January it fell over on its side, and died.

Toads withstand winter by digging down into the soil. They grow torpid, their vital processes slow—but they waken periodically to inch deeper and deeper as frost penetrates the earth. Frogs and turtles do a disappearing act, burrowing into the muck on the



*Chuck Fergus*

bottom of a pond, where somehow their skin can extract enough oxygen from the water to keep their cold-numbered bodies functioning.

I have more trouble keeping tabs on the neighborhood toads than I do on the bears. Last year on the fourth of December I was following bear tracks in the snow. A week later, my neighbor found where a sow and cubs had fed on the guts of a deer killed during doe season. Before winter, black bears feed heavily to build up a layer of fat; sometimes the fat is four inches thick when they start their winter sleep.

In Pennsylvania, most bears den in November or December, although a few have been known to stay out all winter. Bears den alone, except for females who quarter with yearling cubs, or who give birth to cubs in the winter hideaway. Bears aren't particularly choosy about their dens. A hollow tree or log will do, a hole scooped out beneath the roots of a tree, even a drainage culvert. I remember inspecting a den with Gary Alt, a Game Commission biologist. The den was simply the area between two big rocks that were leaning against each other. Wind whistled through the cramped space. The bear inside gave a little start, raised her head, and stared at us. She was nursing a pair of cubs, hairless pink fellows that looked like piglets; as I recall, they made a curious humming noise as they suckled.



Gary and I left without bothering the bears. Other people go right into dens. Lynn Rogers, a research biologist for the U.S. Forest Service, has entered the dens of over 200 winter-drowsy bears in Minnesota, in order to drug them so he could take blood samples and body measurements. "Bears in the den have a rhythm to their metabolism," he says in an article in *National Wildlife*. "You catch them during the down time and they might not even raise their heads." Rogers told of one bear that slept so soundly, "I laid my head on its chest and listened to its heart."

### Too Big to Hibernate

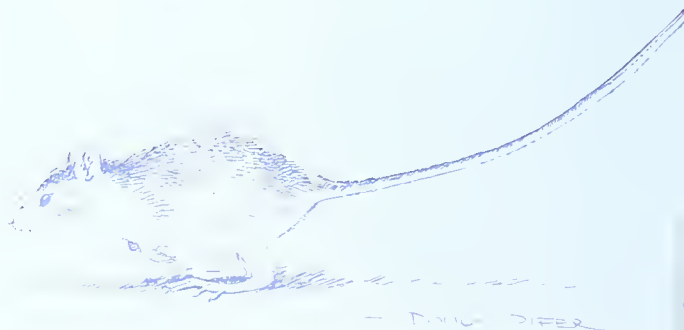
In the den, a bear's breathing, heart rate, and body temperature fall slightly below normal. A bear, it would appear, is too big an animal to actually hibernate; its body's surface area is not great enough, in ratio to its volume, to expel the heat required for lowering the body temperature to hibernation levels. (Scientists do not consider bears to be true hibernators. Among mammals that distinction is reserved for certain of the rodents, about which more later.)

Many Indian tribes believed that dened bears nourish themselves by sucking their feet. Actually, they shed their foot pads in winter and lick the new, tender skin. An adult bear eats nothing all winter, nor does it drink, urinate, or pass feces. According to several accounts, the digestive system manufactures a "tappen," a wad of

pine needles, dry leaves, bear hair, and mucus, that plugs the rectum like a cork.

Unlike the bear, the chipmunk does not fatten itself for overwintering. Rather, it caches seeds and nuts in its underground burrow, and feeds on the stores all winter long. Chipmunks take to their burrows in October or November. They sleep the winter away, waking now and then to eat. Their sleep is deep, but not as deep as the torpor of the true hibernators. Chipmunks emerge to breed in late February or early March, and then often go back down their holes until the weather gets better. Sometimes chipmunks get cabin fever. On sunny warm January days, people have been startled by a sharp chirping sound, and seen a chipmunk scampering across the snow.

Winter torpor may protect an animal, not just by freeing it from the need to forage during a lean season, but by giving it a chance to rest. Consider a shrew. It breathes a good 160 times a minute, eats constantly, is forever running or tunneling through the snow, and never sleeps more than a few moments at a stretch: worn-out and dead at the ripe old age of 18 months. By comparison, a bat of the same size and weight ceases its search for food every autumn, and takes shelter in a cave. It hooks its claws into the ceiling and hangs there upside down, its body temperature depressed, heart lagging, lungs flexing once every five minutes. A four-month slumber gives



the bat's body a near-complete rest. The creature may live for ten years.

Come January, deer mice huddle together in their nests, venturing out at night in search of food, fearful of talon and claw. The jumping mice are not afraid: They are dead to the world.

In summer, jumping mice are lithe and active, taking leaps, on their kangaroo-like legs, of four to seven feet. They gorge themselves on grasses and seeds. By October they are fat and clumsy, easy marks for foxes, hawks, and owls. Then the jumping mice crawl into their leafy, insulated nests, under logs, in hollow stumps, and in unoccupied portions of woodchuck burrows. They roll themselves into tight balls, bury their noses in their bellies, flatten their ears against their heads, coil their long tails about or beneath their bodies—and sleep. Jumping mice are considered to be true hibernators. Their vital processes slow drastically, and they cannot be aroused easily. They do not waken for good until late April or early May. Before leaving the nest, they shiver violently from head to foot, as all true hibernators do when they finally shed the winter sleep.

### True Hibernator

For the woodchuck—another true hibernator—late summer is an orgy of eating. A large adult will down a pound and a half of green food a day. Fat layers itself around the chest, shoulders, and internal organs, until the woodchuck retires below ground in late September.

Woodchuck burrows are three or four feet deep, down to where the soil stays a fairly constant temperature all year long. A typical burrow system branches and twists; at the end of one of its tunnels is a bowl-shaped chamber lined with grasses and leaves: the hibernaculum. Here the woodchuck settles in. Its eyes and lips clamp shut. Its temperature, normally around 100 degrees F., slips to 40. The animal curls into a ball, limbs and torso and head cradling the heart, which re-

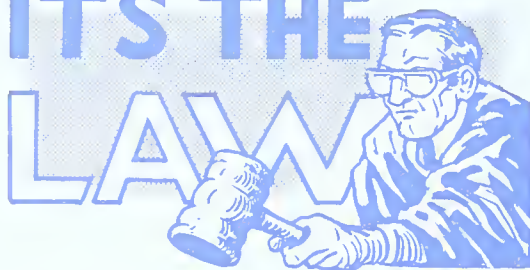


mains the warmest part of the body. In one minute, the heart beats three to ten times, as opposed to 100 in the summer, and the lungs take four or five breaths, instead of the normal 40. A stimulus—a loud noise, a change of temperature, a touch—will not immediately waken a hibernating woodchuck, but it may set in motion one of the animal's periodic arousals. In a laboratory setting, it takes a woodchuck six to seven hours to come completely out of hibernation.

The hibernators that have received the most attention from scientists are the ground squirrels. In North America there are about 20 species, living mainly in the central and western states. One, the thirteen-lined ground squirrel, ranges into extreme western Pennsylvania.

Ground squirrels, like their woodchuck cousins, hibernate in underground burrows. In winter, a ground squirrel's temperature drops from 98 degrees F. to 35. Its heart, over a period of three to five hours, slows from 350 beats a minute to two, sometimes four beats. As winter progresses, the squirrel wakens about every two weeks. Its body temperature returns to normal, it may or may not eat or defe-

# IT'S THE LAW



## Question

May I hunt fox at night with a light?

## Answer

Yes. Raccoon, fox, skunk and opossum may be hunted any hour during the open season, except during the firearms antlered and antlerless deer seasons when the hours are from sunset to one-half hour before sunrise. They may also be taken through the use of an artificial light ordinarily carried in the hand.

cate, and it urinates. After 12 to 24 active hours, the squirrel lapses back into hibernation. During these active spells, which happen periodically until spring, the squirrel burns 80 to 90 percent of all the calories it uses during hibernation.

For many years, scientists supposed it was cool weather that prompted hibernation. But when ground squirrels are kept at a constant 95 degrees F., they still show signs of going into hibernation every 300 to 365 days. Now, researchers have isolated a blood component from hibernating ground squirrels and woodchucks which, when injected into active ground squirrels, puts them to sleep. This component, dubbed "trigger substance," may work in tandem with another component, "anti-trigger." Both substances, scientists believe, are produced the year around. In fall, trigger substance overrides anti-trigger, and the animal goes to sleep; by spring, the balance has shifted in favor of anti-trigger, and the animal awakens.

Hibernation remains more mysterious than understood. It is a good subject to puzzle on as I wait, on a stump, hands and feet going numb, for a fox or a deer or even a chickadee to come along and brighten up a dull winter day. Does a jumping mouse dream, curled up in its snug nest? How does a woodchuck's heart keep beating, at four degrees above freezing? When will the bears be out again? Does a toad lie buried beneath my feet?

## GAMEcooking Tips

Should you be lucky enough to bag some grouse this season, treat them with a great deal of respect to preserve their delicate flavor. Clean and cool them immediately. The grouse has a large meaty breast in proportion to its body size, and the meat is tender and mild. During my son's years at Penn State, he was quite successful hunting grouse, and the following is his favorite preparation.

### Scott's Grouse

Grouse  
3 slices bacon  
2 large onions  
1 large apple

For each grouse, proceed as follows. Chop one onion coarsely and stuff into body cavity of bird. Enclose in plastic wrap to seal out air, or place in plastic bag, squeezing out air. Refrigerate overnight. Remove onion and add to the cavity the second chopped onion and the apple, diced. Place bacon slices over breast and cover with foil, or put in baking pan with lid. Roast one hour at 300°, longer if doing several birds. Test by moving legbone. If leg moves freely, fowl is cooked.

Allow one bird per serving.

—FROM WILD GAME COOKERY  
BY CAROL VANCE WARY



# All In A Year

By Keith C. Schuyler

Photos from the Author

**T**HERE ARE bow hunters who attempt to score in one of the three months provided to take a deer with the bow and arrow — October, December, January. And sometimes, depending upon how the calendar works, there is a sliver of September or November. And there are all sorts of chances to hunt for small game species from Groundhog Day to the end of the year, and even in between for those hardy enough, or foolhardy enough, to try.

But regardless of the score, the compulsion to tell about near misses, or complete misses, or tackle failures, etc., seems to be a universal characteristic of those who favor the stick and string, whether they hunt one day or at every opportunity. As one of the latter, I can accumulate a considerable number of compulsions in a year.

Telling about such episodes certainly can't be misinterpreted as braggadocio—unless we sneak in an odd tale of the time, or even times, when we did score. Our stories are more likely to make people chuckle at our ineptitude. We might even arouse sym-



**AN ARCHER** who had it all together—almost. Schuyler can look back on any year's hunts and remember times when things went right and times when they went wrong. That's what makes hunting fascinating.

pathy of a sort among other hunters who may have had a bad day or two.

The perennial winners, on the other hand, can quickly bore us with tales of their successes and, just perhaps, encourage envious feelings which we would prefer not to have encouraged. If they have the evidence hanging on the wall, or photos, or newspaper or magazine tear sheets, to prove their prowess with the bow, it spoils any secret suspicions we might have had that they were manipulating the truth all along.

But even the anti-hunters shouldn't get too upset hearing about my misses in just one year.

Practice had proven, so it seemed,

that if a deer came within 30 yards or so of my bow, it risked spending the rest of its useful time between the food freezer and our dining room table. The first to test this premise was roughly the proper distance down the side of a mountain near the Maryland border in our early October season. It is possible I didn't make allowance for the unfair tilt to the shooting platform. Suffice to say, my arrow failed. It also frustrated cinematographer Clayt Dovey, who had planned to take moving pictures of the associated action.

However, it did save me a hot haul of the deer carcass in unseasonal temperatures. As it turned out, this was

**CINEMATOGRAPHER Clayt Dovey had hoped for some exciting action footage on his hunt with Schuyler. He ended up shooting scenery. Some days are like that.**



the only deer to present itself for a shot during the regular archery season.

After another month, there would be a second chance for a close encounter with a whitetail. Meanwhile, we would have four weeks for small game hunting, and practice.

There was this cottontail rabbit that frequented a small thicket about 25 yards from a woodchuck burrow. My first try was my best; the arrow nearly caught him as he cut sideways and used the front lawn to pick up speed. The next time he was a bit closer to the hole, and the arrow was somewhat farther off the fleeting mark. On Thanksgiving Day, the rabbit was within a few yards of its burrow and my sixth try was the worst.

The same morning, my eight-year-old grandson and I took a walk with the recurve bow I use for small game. He drifted off to my left and suddenly announced, "There goes one, Granddad!" Standing stock-still, I observed the cottontail cutting behind, and then stopping a measured 30 yards away on some fallen leaves. Ducking under an interfering pine bough, I leveled on the rabbit and was rewarded by a great flurry of leaves where the arrow hit. On my approach, the cottontail fled back from whence it had come. No damage had been done, and the animal was but momentarily mesmerized.

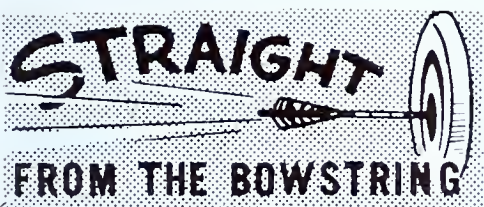
### **In the End – Zero**

There were other less spectacular shots during small game season. But, in the end, my score was zero.

Well, practice makes perfect. And I'd had plenty, both at my personal parking lot range and in the field. Then the two-week, bucks-only gunning season arrived.

Early morning at my well-laid-plan site proved uneventful, despite encouraging sounds of gunfire in the opening hours. At precisely 10 a.m., I headed home, after donning my eyeglasses. They're unneeded for hunting and interfere with precise shooting, since my anchor is at nose level. As I started





down a wooded bank, I caught the movement of a doe. Further inspection revealed she had two companions, both well-antlered bucks.

They shared her agitation at sight of my coffee-bound figure, and headed up the mountain. Said figure, forgetting to remove the offending eyeglasses, attempted a 45-yard shot at the smaller of the two male deer. The arrow went slightly wide to the right of the quartering and rapidly disappearing animal.

### A Bit Too Soon

The bigger buck, after presenting a frontal appearance while a second arrow was being nocked, retreated to some evergreens and then sidled to the right toward an opening about 40 yards distant. A hurried but carefully executed release sent the second arrow straight for the opening—albeit a bit too soon. However, the now alerted and broadside buck jumped in front of the arrow! The missile traveled low and landed under the buck's chest in moss so soft it hardly dulled the razor-sharp broadhead—a most fortuitous circumstance.

There were no further opportunities during buck season. The time before the after-Christmas season, in deference to the offending but increasingly useful eyeglasses, permitted practice with a new and lower anchor. All was in readiness.

At the appointed time, I was again ensconced at a favored spot on a snow-covered slope. Movement on the opposite ridge indicated I was not alone. Ten minutes later, three antlerless deer came tripping my way, and one stopped for a moment but 30 downhill yards from my ground stand. It was time enough to release an arrow.

Circumstances were perfect, al-

though my usual practice plane was tilted about forty-five degrees. Possibly I instinctively felt for the old anchor spot on my face. For whatever reason, the arrow hit embarrassingly low.

I retreated to the parking lot, set up a broadhead target with a miniature deer outline on it, and proceeded to thump arrows into the figure at 30 yards. I felt like a lottery ticket holder with the right numbers for the wrong week.

Nevertheless, I defiantly hied me back to my stand, confident that any deer foolish enough to come my way were now up against a hunter who had it altogether—finally and absolutely. To hurry things along, I enlisted the help of my brother Wayne, who had been eating venison for several weeks.

Not only did he bring back the three deer that had decided to live dangerously, but another female and her fawn also accompanied them. However, the addleheaded fawn decided to climb the opposite ridge. *My* three does stopped short, well within range but protected by the brush from which they had previously emerged so accommodatingly. They turned to follow the fawn and its mother.

I still had time for a standing shot—a prayerful attempt to penetrate the brush. The badly bent arrow proved

**COTTONTAILS** are popular quarry for bow hunters as well as shot gunners. Schuyler got such a kick out of one that he shot at it half a dozen times—and it was still around for future tries.





useful later as a study in parabolas.

If you are one of those conversation-alists restricted to personal tales of success, the lessons available from this honest confession may not be useful. Others may understand why I sometimes even mumble to myself. To avoid making this a one-sided conversation, you are invited to tell me about a miss you may have had—when I'm not hunting.

Had not all those pesky problems developed through circumstances *almost* beyond my control, much of

my hunting season would have been spent doing useless chores around the house—or whatever. Importantly, there were those opportunities to enlarge upon my experience. It took a lot a tramping and planning to develop them. All will be long remembered even though they produced nothing more than red-faced chuckles.

If there were only more space, I could tell you about a few other rabbits and squirrels and woodchucks that. . . .

PS—I ordered new eyeglasses.

## young artists page



**Wes Wagner**  
Rebuck, Pa.  
Line Mountain High School  
11th Grade

**Mike DeMarte**  
Corry, Pa.  
Corry Junior High School  
7th Grade





**J. DEWEY'S BORE SAVER** shown alongside action. It actually fits inside when bolt is removed and cleaning rod passes through it.

# The Fouled Barrel

By Don Lewis

Photos by Helen Lewis

**T**he printout downrange was anything but good. In fact, it was probably the worst group I've ever fired, not counting some fired from several ex-military derelicts. The window in my target house is roughly 18 x 22 inches. Four shots splattered over a 10-inch area, but a fifth hole couldn't be found. I was not only frustrated, but completely at a loss as to what was wrong. I decided to try a 3-shot group at 50 yards.

I memorized the locations of three holes in the 4-inch bullseye from a previous session and fired three shots without checking where each hit. I casually looked at the bullseye, expecting to find extra holes, but only the original three stared back. Then I saw my group, if it could be called that. I was so upset that I walked out and removed the target. I didn't make any careful measurements, but a rough check with a steel ruler showed the shots were scattered over five inches.

What could be wrong with a 22-250 heavy barrel not quite five years old that had often cut less than  $\frac{5}{8}$ -inch groups with handloads?

When I'd received the call asking me if I would check out a heavy barrel varmint rifle, I was hesitant, especially after what I was told. My shooting shop had been closed for several years, and I didn't have the time to put a rifle through its paces, trying to figure out why a drastic change had taken place. Also, I had learned to be somewhat suspicious of rifles that had cut "less than  $\frac{5}{8}$ -inch groups," then suddenly jumped to  $1\frac{1}{4}$  inches and above. In many cases, the  $\frac{5}{8}$ -inch group was a product of luck; the rifle was actually a  $1\frac{1}{4}$ -inch outfit all the way. However, when I learned this rifle had suddenly gone really wild, I became curious.

The phone conversation had drifted from my mind, but when the owner stopped on a cool Saturday morning, I delved back into the history of the





**KIT HAS everything needed for good gun care—scrubber to clean action, solvent to remove fouling and powder residue from bore, and a moisture-displacer to prevent rust.**

rifle. It was just a regular factory heavy barrel outfit topped with a high quality 12x target scope. I had fired many of its brethren over the years with good success. I was so convinced the problem was not in the rifle that I removed the scope and checked the base screws. Nothing was out of order.

As I mentally ran over past experiences, I asked the gun's owner for a rundown of the components used in the reloads. I grabbed my *Hornady Handbook of Cartridge Reloading* when he gave me the powder charge. I won't even mention the specific powder or weight, but it considerably exceeded the maximum charge suggested for a 50-grain bullet. He registered little surprise when I showed him my findings. "I like hot loads with lots of speed," was his nonchalant comment.

I knew the answer to his problem was deep in the barrel. Either the throat was badly scorched or the barrel was completely fouled. Or it could be a combination of both. Not having a borescope, I cleaned the bore with a

liquid powder solvent and wiped it dry. I examined it by pointing the muzzle toward a small photo-flood bulb, looking through the bore for fouling streaks. This is certainly not a guaranteed method for detecting bore fouling, but what I saw convinced me the bore was plated with metal. I handed him the rifle with a stiff warning about hot loads and the suggestion to have a gunsmith attempt to clean the bore. Since the chances of throat scorching were high, I told him it might be best to rebarrel the varmint. He didn't exactly agree with my suggestions and felt the bore hadn't been damaged. I never learned what the final outcome was.

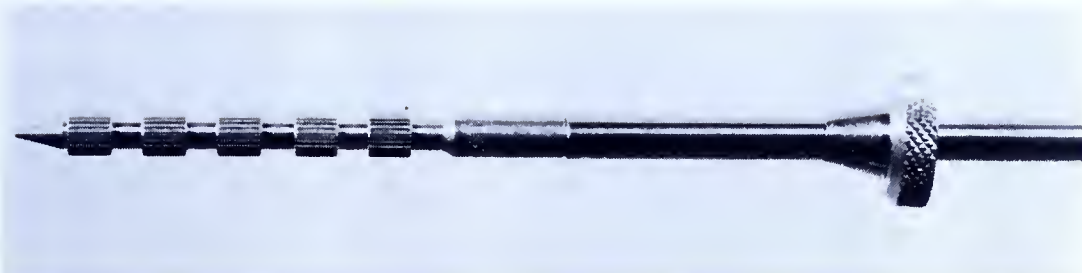
When it comes to gun cleaning, there are two factions. One group is made up of fastidious gun buffs who swab, wipe and polish a firearm after each day in the field. My brother Dan never put a rifle or shotgun on the rack until it was properly cleaned. The other group fits very well into a category I will call "negligents." Cleaning the hunting gun is just too much of a hassle—at least for the moment. Some other time will fit their schedule better. However, that other time seldom comes.

### One of the Negligents

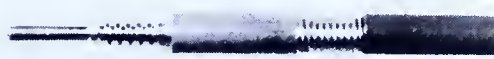
Even with all the good gun training I received from Dan, I qualified for many years as a devout member of the negligents. But, the more I range tested firearms, the more aware I became of the need for proper gun cleaning, especially the bore cleaning of high velocity rifles. When muzzle velocities range above 3,600 fps, bore fouling can take place quickly.

Bore fouling can be described as streaks or patches of metal left in the





MUZZLE ADAPTOR, top, makes it easy to clean lever and slide action rifles from front without harming lands; tapered cone fits into muzzle and rod goes through it; shown with J. Dewey's jag-type unit. Right, Blacksmith Corporation's "Friction-free" rod tip. First felt screws onto threads, second slides over smooth spigot.



bore from the jackets of bullets. Maybe it can be called a build-up of metal in the bore. I think it's fair to say the higher the velocity, the more danger of bore fouling. The shooter in the beginning of this article far exceeded safe pressures and velocities for the 22-250, and possibly scorched the throat of the chamber along with depositing layers of jacket metal the entire length of the bore. Not only was he endangering himself and those around him, but he also ruined the barrel.

Bore fouling was common in the heyday of the cupro-nickel bullet jacket. That metal is no longer used in this country. The modern jacket is made from an alloy of copper, pure copper or gilding metal. This doesn't mean that bore cleaning is not necessary even in low velocity rifles. A variety of ills can play havoc with the uncleaned bore. Rust is the major demon, especially in soft metal barrels. Pitting can occur in a neglected barrel in a matter of weeks. Various stages of rust can be removed, but severe pitting normally means a new barrel.

I won't delve into the old methods of removing rust. Some involved the use of fresh cow's milk, Vienna lime, valve grinding compounds mixed in oil, etc., plus a lot of elbow grease. Today, the picture has changed. Harder smoother

barrels in high velocity rifles and better jacket material add up to less metal deposit. Better designed rods, bore savers (guides), and superior cleaning fluids and compounds take the work out of bore cleaning.

Let's take a quick look at some of the modern stuff.

### Some Modern Stuff

A new liquid bore cleaner that is gaining notice is Gold Medallion, manufactured by United States Products Co., 518 Melwood Ave., Pittsburgh, PA 15213. It's a breakthrough for hunters and precision shooters alike, as it contains no toxic admixtures such as benzene and ammonia. In fact, it contains no solvent products whatsoever. It is both non-embedding and non-abrading. Its main claim is to remove all traces of lead, copper, carbon, powder and plastic fouling. It's easy to use as no brushing or soaking is involved.

Gold Medallion dates back to 1960, when benchrest champion and *Field and Stream* firearms editor Warren Page contacted USP requesting the development of a product to clean bores of firearms. That's the beginning.

Since 1984, USP has been working with Benchrest Hall of Fame member Ferris Pindell, who won ten national championships and set ten world rec-

ords. Pindell says, "I never won a match with a fouled bore, and I don't think you will, either." Instructions accompany each plastic bottle, and Pindell gives a photo-illustrated method for the proper application of Gold Medallion. I'm using it exclusively on my new CHeetah.

There's been a lot of improvements in cleaning gear from the days of the hickory stick with an eye in it to rods covered with nylon to protect the rifling. Blacksmith Corporation, Box 424, Southport, CT 06490, has a unique gunfelt/adapter setup on their "FrictionFree" gun care system.

### Anti-Friction Coating

Their three-piece deluxe rods are covered with an anti-friction coating and measure roughly 35 inches, not including the freely rotating handle and the unusual adapter that holds the thick-walled tube of compressed gun felt.

The adapter screws into or over the end of the rod, depending on the caliber. The rear portion of the adapter has threads and the front is a long smooth spigot. The first gunfelt is screwed onto the rear portion of the adapter and the second is slipped over the smooth spigot. The rod is pushed through the barrel from the chamber and out the muzzle. When it is pulled back, the front felt, which is saturated with fouling and powder residue, falls off. The remaining felt can be pushed back and forth until the bore is clean. Remove the felt and wipe the rod clean with a paper towel or cloth. Screw on a fresh felt, soak with oil and work it back and forth through the bore several times.

The J. Dewey Manufacturing Co., 186 Skyview Dr., Southbury, CT 06488, has several innovations that will benefit both the competitor and the hunter. Among George Dewey's

many offerings is a long, one-piece, nylon-coated rod equipped with a handle mounted on ball bearings. The nylon protects the bore and does not pick up grit or grease. A jag-type adapter allows the patch to be wrapped around the jag to prevent metal to metal contact in the bore.

Dewey makes a bore saver from polished aluminum. The guide fits into the action and aligns the cleaning rod with the bore so it cannot harm the chamber or throat. It also keeps oil and cleaning solvents out of the magazine area.

Dewey also makes brass brushes, complete with looped-end brass cores, and a brass muzzle adapter which prevents damaging the crown on rifle bores that must be cleaned from the muzzle. A tapered brass cone slips into the muzzle and prevents the rod from touching the crown. When not in use, the rear of the rod hole fits over a special spring-type sleeve on the rod so the muzzle saver can't be lost.

Birchwood Casey of Eden Prairie, MN 55344, has a variety of cleaning and refinishing supplies. One thing that makes cleaning a firearm easier is their Gun Scrubber. Short blasts from a pressurized can remove most of the dirt and grease in a gun's working parts. Wipe dry and cover with Casey's Sheath, which displaces moisture and prevents rust. Their Gun Maintenance Kit consisting of Sheath, Gun Scrubber, and Bore Solvent would be highly useful in the hunting camp.

Birchwood Casey has many other products, including a gun cleaning silicone cloth, a Sheath take-along cloth, and a high grade of gun oil.

There's no rhyme or reason for not taking care of the bore. The market place is full of top quality cleaning items. Don't be one of the "negligents"; keep your bore clean.



# GUNnews for Shooters . . .

**Rust Buster!** is the name of Lyman's new rust remover for reloaders and shooters. Removes oxidation from tools, reloading dies, moulds, etc. Reusable. Not usable on blued items. (Lyman Products, Route 147, Middlefield, Conn. 06455.)



B-Square has a new no-gunsmithing mount for the Winchester Ranger, 1200 and 1300 slide action shotguns and for the Browning A5 autoloader. Mount is easily installed by replacing gun screws with mounting screws. Standard dovetail accepts any Weaver-type rings. (B-Square Co., P.O. Box 11281, Fort Worth, Texas 76109.)

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# *In the wind*

bob mitchell



The National Wild Turkey Federation has instituted a program to recognize turkey hunting achievements by archers. Those already on record with the Federation for taking a turkey with a bow will automatically qualify for entry in the new category and become eligible to receive a special pin. Weight, beard length and spur length will be used to rank birds bagged since 1982. Those taken earlier will be judged only in the beard and spur length categories because of the difficulty in verifying old weight claims.

Last fall, Michigan hunters were all set to enjoy the state's first mourning dove season. At the last moment, a county circuit judge, citing the state's 57-year-old game law, ruled the state's Natural Resources Commission didn't have authority to establish the season. The commission, he concluded, has authority to regulate seasons, but none to establish seasons.

In its first project in the United States, Ducks Unlimited, with assistance from the North Dakota Department of Game and Fish, has created a 100-acre predator-free island for waterfowl. Agricultural practices in the Midwest leave little space for waterfowl nesting. Foxes, raccoons, skunks and other predators therefore have easy pickings. Research indicates more than 70 percent of waterfowl nests are destroyed, and 20 percent of all nesting hens are killed. While nesting success on the mainland may reach only 15 percent, it's expected to reach 90 percent on the island, which, it's felt, will support 30 nests per acre.

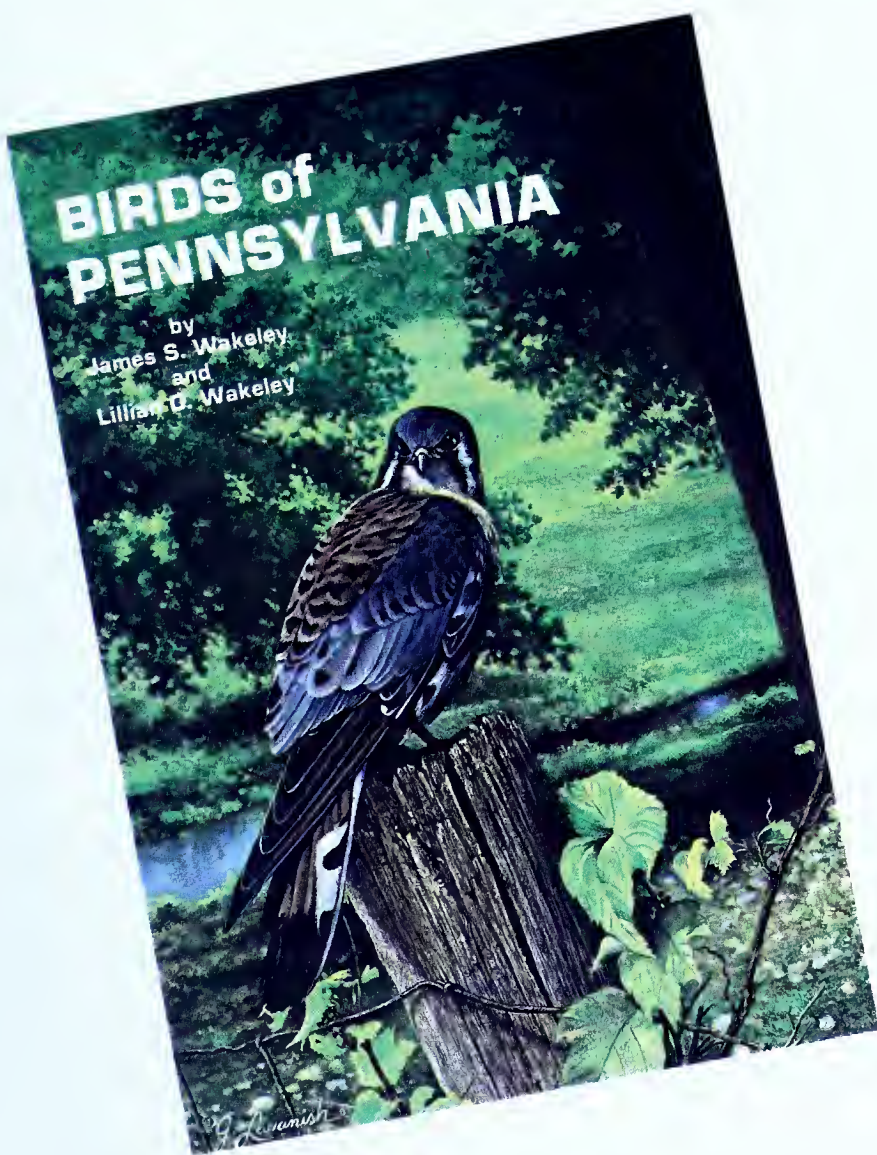
A 45-acre, hourglass-shape lake in northern Wisconsin is being used by the state's Department of Natural Resources to study acid rain effects. A plastic divider was placed across the narrowest part of the lake. Half was then treated with sulfuric acid to simulate acid precipitation pollution. The other half serves as the control. Scientists will monitor the effects on both plants and animals caused by the increased acidity.

Of all the fruit consumed in the United States, 25 percent comes from foreign countries where many pesticides prohibited from use in this country are used. Most food imports are not inspected and, of those that are, less than half the pesticides which might be evident are tested for.

According to the National Wildlife Federation, 364,000 wild animals are brought into the United States each day. Of this total, 337,000 are fish and 2000 are birds, 25 percent of which are dead on arrival or die before they are purchased.

**Under recently enacted federal legislation, private companies and individuals are now permitted to feature images of federal duck stamps on posters, belt buckles, glasses, patches and other products. Ten percent of the retail purchase price on such items goes to the Migratory Bird Conservation Fund.**

The Midwestern population of least terns and three subspecies of beach mice found along the Gulf Coast have been added to the federal endangered species list. An estimated 1400 to 1800 least terns exist in the Midwest. Flooding, channelization and the construction of reservoirs along the Mississippi and its tributaries have destroyed much of this ground nester's breeding habitat. The three varieties of beach mice include the Perdido Key beach mouse which, with only 26 known to exist, is considered the nation's rarest mammal. To protect these mice, 31 miles of Gulf coast dunes in Florida and Alabama have been classified as "critical habitat," a designation that protects habitats needed for the continued existence of an endangered species.



*Birds of Pennsylvania: Natural History and Conservation*, a completely new book by Jim and Lillian Wakeley, includes the most up-to-date information on bird biology and behavior, and the kinds of birds commonly found in the state, arranged according to the type of habitat where they are most likely to be seen. This 214-page hardcover book, supplemented with 40 full-color pages featuring the Game Commission's popular bird charts and previous GAME NEWS covers, is being sold for \$10, delivered.

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## Hunting—A Personal View

I'VE BEEN THINKING about hunting. It's a subject that goes through my mind occasionally—like on the hour during the closed seasons, constantly when it's legal, even if impossible for me, to be afield. It's exquisite torture to know that others are broiling on a September dove hunt, stomping through pheasant cover, or congealing on deer stands while I'm staring at a blank sheet of paper in the typewriter, trying to make something coherent come out. I do get afield at every possible chance, though—not only because I like to hunt but also because it's part of my job to see what's actually going on out there. It helps to have some first-hand knowledge, plus the personal comments of hunters I meet, when trying to get an overall picture of the situation.

Perhaps enough time has gone by to look at the past season objectively. On a personal level, it wasn't too bad. I collected a raft of doves in September, four ringnecks and half a dozen rabbits in November, and a deer in December. By some standards that isn't an awful lot, but I know a bunch of guys who would be glad for it. Not one of the roosters was a stocked bird, and one was the biggest, longest-spurred ringneck I've ever killed. I mention all this because the 1985 season was a significant change for me from 1984's. Except for a few dozen doves, I didn't fire a shot in the 1984 season, though I was out at least a half-dozen days for small game and about the same number for deer. I grumbled just as much as anyone else who has been skunked. Never in all the years I'd been hunting—since 1937—had I gone all season without getting at least one ringneck and a few rabbits in Pennsylvania. But in '84 my score was zilch, and I complained to anyone who would listen.

Then in the months following the close of the 1984 season, I got to thinking about the hunting I'd done that year. Or hadn't done. That's the part that bothered me. When I recalled my actions honestly, I had to admit I hadn't hunted as hard that season as I normally do. I knew there were fewer birds out there—all indications pointed to that—so I subconsciously started goofing off. I'd hunt one cover reasonably well but wouldn't bother with another one because it was inconvenient to get to, or it was too thick and brambly, or because "I haven't flushed a bird here, so there can't be any there." A similar attitude prevailed in deer season. I hunted a new area without doing any scouting and ended up with an unfired rifle.

I'll tell you something, friend—that ain't hunting. I was just going through the motions. I made up my mind that in the next season I was going to hunt every minute I was in the brush. Those minutes are just too few and too valuable to waste in kidding myself. So in 1985 I hunted, and I hit the thick spots I'd have passed up the season before, and I killed four of the five roosters I kicked out, the one deer I shot at, and some rabbits. Maybe I didn't kill as many birds as I'd have got with the same effort in 1968, say, but I got enough to make it worthwhile. More important, I was hunting, not pretending to hunt. It makes thinking about the past season very satisfying.—*Bob Bell*





TURNING SLOWLY, I SAW a pair of squirrels foraging near the base of a large white pine. The distance was only about 30 yards or so. A nearby tree offered a good rest for my 22.

## *Late-Season Squirrels*

By Ken Olenderski

IT WAS THE second Saturday in January—the last day of the season—and sunrise found me in a familiar hardwood stand, resting comfortably on a portable stool with my back against a large red oak. As always, I became totally absorbed by the sights and sounds of the early-morning forest.

After the regular small game season closes on Thanksgiving weekend, most hunters never give squirrels a second thought—but I do! I look forward to the late squirrel season with as much anticipation as the first half. And believe it or not, the hunting in December and January can be as good as in October and November.

The chickadees and nuthatches were the first to stir in the frosty air, and their cheerful chirping generated a warmth that is hard to describe—it

can only be experienced. Off to my left, a woodpecker was hammering away at a dead snag, and somewhere nearby a couple of bluejays were raising a racket. Then, about twenty minutes after sunrise, I spotted three deer making their way toward my stand. They passed within 40 yards, and I watched them for quite a while before they passed over the ridge.

Wildlife was everywhere, it seemed, but the bushytail activity I was expecting never materialized. So, after an hour and two cups of coffee, I decided to move. Shouldering my stool, I moved quietly along the snow-covered trail to another likely spot about 200 yards away.

Another hour passed, and still no squirrel activity. Just as I was about to lapse into serious daydreaming, I spotted a flicker of movement. Turning



slowly, I saw a pair of squirrels foraging near the base of a large white pine. The distance was only 30 yards or so.

A nearby tree offered a good rest for my 22 rifle. By the time I was in position, two more squirrels came down the pine tree and joined those on the ground. Before I could single out a target, however, three of them set off on a nose-to-tail chase—straight in my direction! Within seconds they passed so close that I dared not move for fear of being noticed. A dozen steps behind me, all three dashed up a large hickory amidst a shower of falling bark.

Meanwhile, the fourth squirrel was approaching along the same route, but a little more cautiously. Eventually he jumped up on a fallen log and paused just long enough for me to find him in the scope and squeeze the trigger. My first bushytail of the day. Without hesitation, I turned toward the hick-

ory and located two of the three squirrels which had scaled it just moments before. The sound of my shot hadn't seemed to bother them in the slightest, which is not unusual when hunting with a rimfire rifle. But I didn't have a clear shot at either of them. When the less wary one began a slow descent of the hickory, however, I was ready and dropped him with a well-placed shot.

### Simply Froze

Instead of seeking refuge, the other critter simply froze. I waited. After several minutes, he ventured out on a limb. It was an easy shot, and squirrel number three was on the ground just a few feet away from the previous one. Without moving, I carefully scoped every limb and crotch of the tree, but apparently the remaining bushytail had slipped away while my attention was focused on the others.

Deciding to let things quiet down a bit, I picked up my squirrels, walked quietly back to my stool and sat down. About twenty minutes later I glanced back up into the hickory and was surprised to see a squirrel sitting high on a limb. When I stood up to try for a shot, however, he slipped around the trunk of the tree and was gone. I was surprised that he had come out of hiding, and when he reappeared on the tree trunk and stopped about halfway down, I just couldn't believe it. I centered the crosshairs quickly, touched off the shot, and squirrel number four was in the bag. Walking over to retrieve my prize, I thought about my success. Taking four squirrels without a miss is unusual for me.

It was only 11:30, and although there was plenty of hunting time left, I headed down the trail toward home, savoring the memory of another great day in the woods and another successful hunt.

I must admit that I was pretty lucky that day to bag four squirrels in less than an hour, but taking two or three, and sometimes four or five, is not hard during the late season. The key to success is knowing where to find squirrels



**WHEN THE LESS** wary of the two squirrels began a slow descent of the hickory, I was ready and dropped him with a well-placed shot. Instead of seeking refuge, the other critter simply froze.

at this time of year and how they react to cold weather.

Low temperatures and dwindling food supplies make bushytails spend more time foraging; thus, they are more available to hunters. Their peak of activity seems to occur during the warmest part of the day, usually between 10 a.m. and 3 p.m.

At this time of year, the sun is your most important ally, so I like to concentrate on south-facing slopes. They warm up earlier and offer more squirrel activity as the day wears on. In agricultural areas, woodlots bordering cornfields are also good places to try. When other foods get scarce, leftover earcorn attracts squirrels like a magnet.

If there is a blanket of snow on the ground, watch for places where squirrels have burrowed for acorns or hickory nuts. A concentration of these tell-tale diggings indicates a prime feeding area where you can usually tag a few more grays before the end of the season.

### Lightweight Stool

On all my winter hunts I carry a lightweight folding stool, the kind that has a handy carrying strap and a compartment under the seat. With one of these and a tree to lean against, I can be comfortable, and alert, for hours. And a few sandwiches and a thermos of something hot to drink really add to the enjoyment of the hunt.

All in all, the late season offers great hunting and lots of opportunities to harvest the fixin's for your favorite



**THE WILD RESOURCE CONSERVATION ACT** of 1982 gives all Pennsylvanians an opportunity to actively support the protection and management of the state's wealth of natural resources. Modeled after the "income tax check off system" used successfully by 19 other states, Pennsylvania taxpayers may contribute all or a portion of their income tax refund to protect nongame wildlife and native plants. Much more can and needs to be done to protect our natural resources. So, when you're filling out your tax return, look for the owl and "Do Something Wise." And if an income tax refund is not due, contributions may still be made directly to the Wild Resource Conservation Fund, P.O. Box 2063, Harrisburg, PA 17120.

squirrel recipe. So if you're a squirrel hunter who's been spending this precious time indoors, put on some warm clothes and head for the woods this year. You won't be disappointed, I guarantee it.

### Cover Story

Wild turkeys can be found in suitable habitat throughout the state. At this time of year turkeys are often found in flocks composed of family groups; however, older gobblers may band together in flocks by themselves. Many people think extensive feeding programs are necessary to sustain turkey flocks through the winter, but such is rarely the case. Turkeys are well adapted to finding food on their own. And if the weather gets real severe, turkeys will seek shelter in secluded roosts and refrain from feeding. Research studies have demonstrated that turkeys are able to survive for more than two weeks without food and water.







# Newell Edgar's Magic Shotgun

By Jim Bashline

NEWELL EDGAR was one tremendous grouse shooter. During the first quarter of the present century, his grand total on ruffed grouse would have filled a good size dump truck. But then, there were plenty of grouse to shoot at in central Pennsylvania at that time. The cut-over forests had been replaced by scruffy hardwood brush and small hemlocks with plenty of thornapple trees decorating the occasional pasture field. The grouse did well and so did the hunters. Even into the '30s and mid-'40s topnotch grouse cover was the rule and not the exception across much of Pennsylvania. It was a great training ground for wing shooters, and a platoon of fine ones developed in the Keystone State. Newell was a cut above most. Nobody got on a bird faster or could boast of a better average. He was not happy if a box of shells didn't deliver 18 birds. Now, in case you haven't pointed a shotgun at many grouse, allow me to observe that 18 for 25 is mighty fine shooting.

Newell was an excellent judge of grouse cover and an accomplished all around outdoorsman, but there was a special piece of equipment that his close friends insisted was the basis for his phenomenal results on grouse. He had this 16-gauge double, an L. C. Smith Ideal Grade it was, with 28-inch barrels. With it Newell was as deadly at 10 yards as he was at 35 or 40. And he didn't take only the easy ones and pass up the marginal shots. He took 'em as they came, and on some days, according to eyewitnesses, he simply didn't miss. When he popped the primer on a dose of number 8 shot, the next sound heard was the muffled "thunk" of a dead bird meeting the forest floor.

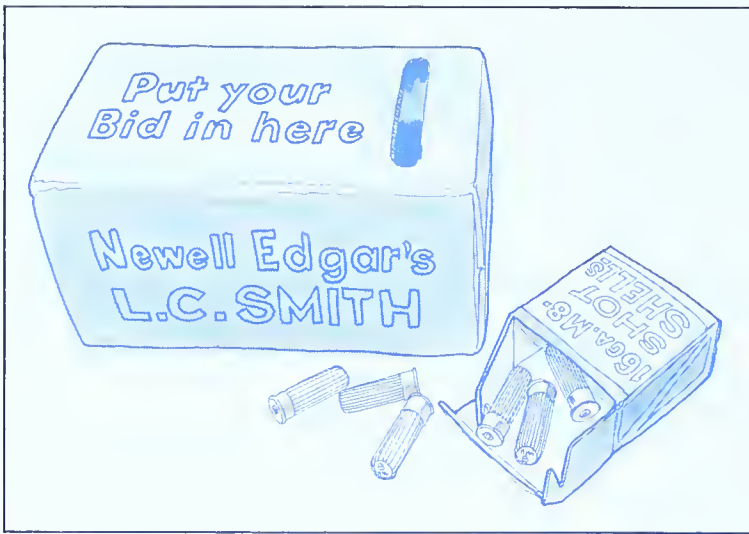
During his career as a grouse shooter, Newell owned several decent bird dogs—but they were just decent, mind you. Several other dogs in the area would have easily beaten Newell's setters if they had competed nose to nose. So it wasn't the dogs that made Newell the top grouse gunner. Nope, that little L. C. Smith was the magic of his success, everyone was sure of it. Why, some pretenders to the grouse shooting "championship" of the region declared that if they ever got their hands on that smoothbore they'd be just as deadly as Newell. Yessir, that gun was one in a million! With such statements are legends made.

## The Place

Not too long after WW II ended, old Newell went to the place all good grouse hunters go to. His funeral was attended by a few relatives and quite a few seekers of the well worn L. C. Smith. I don't know if anyone actually tried to buy the gun at the church door from Newell's widow, but it would have been hard to blame a desperate grouser for trying. After all, this was probably the greatest grouse gun in the entire free world, and to own it was to own the secret of wing shooting success. Or so everyone thought.

Not too many days passed before Mrs. Newell discovered that her late husband's shotgun was a highly coveted item. Since the Edgars had not been blessed with children and had no family members who were serious hunters, she decided to auction the gun via sealed bid. The matter was to be handled by the local hardware store.

For a two-week period, those interested in the gun could put their bids into envelopes and drop them into a



box on the store counter. On the box, in big block letters, was printed: "Newell Edgar's L. C. Smith. Put your bid in here."

Practically no bids went into the box on the first day or even in the first week. All interested parties were much too busy trying to pry out of each other what the price range ought to be. In the end, no one revealed his bid to anyone else, and offers ranged from \$50 to \$500. Even in the '40s, \$50 was much too low for a decent L. C. Smith and \$500 much too high. Anyway, the \$500 bid got the gun for a fellow known as "Rip" Davis. Rip owned a small plumbing business and had three fellows working for him. He did no plumbing himself during the grouse season but hunted every day. He was a fair shot and he was delighted to get his hands on Newell's shotgun.

### Trace of Figure

The Ideal Grade L. C. Smith was but a slight bit fancier than the Field Grade. A little coarse engraving in the form of open flowers and scrolls decorated the receiver and the bottom of the trigger guard. The wood had a trace of figure here and there. This particular Ideal Grade didn't have ejectors or single trigger. The bluing was pretty much gone around the breech end of the barrels from many years of carrying. The case-hardened frame was polished nearly bright. The

stock was reasonably sound save for a hairline crack extending for about an inch back from the left sideplate, a common happening with old L. C. Smiths. But the appearance of the gun didn't bother Rip one bit. This gun had special powers and he was delighted to be its new owner. Grouse season couldn't come too soon for him.

Patterning or test firing shotguns was not done much by old-time grouse hunters. There wasn't much need to. There were plenty of birds to practice on, and either a gun shot well or it didn't. In the latter case, it was swapped away with no ceremony. A serious grouse hunter didn't mind nice looking guns, but performance in the field was the main criterion. If more birds could be gathered with a length of stovepipe and a fencepost for a stock, well, that's what they'd hunt with. Rip was a serious grouse hunter, and was fairly trembling on the opening day of the 1948 grouse season.

On opening day evening, all hands gathered at the hardware store to recount their experiences. This evening was a little different from the others because everyone was anxious to discover if the magic of Newell's L. C. 16-gauge could be transferred to its new owner. Most of the clan had a bird or two, and they could hardly wait to learn of Rip's success.

It was well after dark when Rip arrived. The look on his face was not one



of joy. Without a word he slumped into the battered lawn chair beside the oil drum stove and pulled the L. C. from its canvas case. "Anybody want to make a good buy on Newell Edgar's shotgun?"

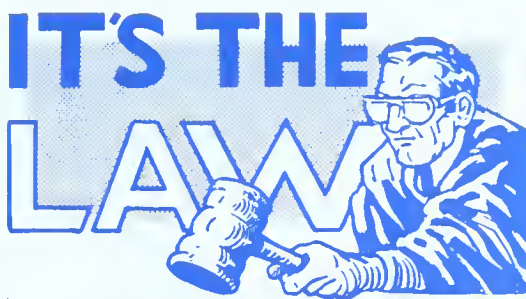
The audience was stunned. Finally the questions came with a rush and after waiting a full minute Rip answered them all. No, he hadn't killed a grouse. Yes, he had had several shots. Yes, his dog had worked well. Yes, some of the shooting opportunities had been easy ones. No, the gun hadn't malfunctioned in any way. Yes, he was shooting low base 8s, the same load Newell used to use in it. No, he hadn't restocked it or modified it in any way. He just couldn't hit with the gun and his only guess was that it was jinxed or else Newell had taken all of the good shots out of it in some way.

### Serious About Selling

Rip was serious about selling the gun, and while he allowed that after his day with it he doubted if anyone would allow him to break even by offering \$500, he'd gladly sell it for \$350. Sam Hartnett bought the gun on the spot with the observation, "You're nuts, Rip. I hunted with Newell enough times to know there isn't anything wrong with that gun. You were just so uptight about using it that you probably forgot everything you ever knew about hitting grouse. After all — heh, heh — I've seen you miss a time or two myself."

"Okay, wise guy, I'll see you here Monday night and you show me how many grouse you killed with it. Cripes, I had one bird practically fly down the gun barrel and I still didn't cut a feather."

Monday found Sam Hartnett charging into his favorite grouse cover with his pair of fine setters bouncing back and forth like school kids at recess. By and by they both looked up at the edge of a grapevine tangle. Sam walked into the thicket with the L. C. at the ready and *whirrrrr*, a mature cock grouse vaulted out a full ten feet above the



#### Question

Must I carry identification in addition to my hunting license while hunting or trapping?

#### Answer

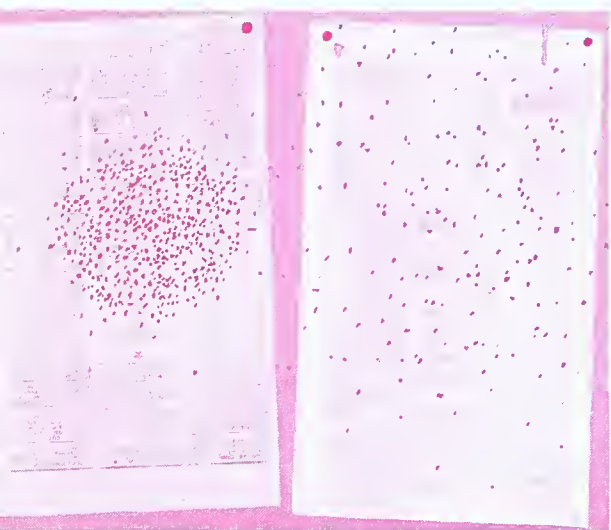
Yes. You must be able to further establish your identity to an officer upon demand.

vines. A perfect towering shot, the kind that doesn't come often. In fact, it was the kind of shot that no self-respecting grouse hunter would admit to missing. But Sam did miss and in his shock he hesitated in pulling the second trigger until the bird was nearly out of range. That shot also failed to connect and he stared at the gun and mumbled, "I don't believe it. I couldn't have missed that bird. I was right on it. At least I thought I was. Well, maybe I was a little nervous too. All the tradition and talk about Newell's gun. Oh, well, c'mon, boys," addressing the dogs now, "let's follow this one up and try again."

Within a hundred yards or so, the dogs did find the grouse again, and on the re-flush Sam missed again. Not as easy a shot as the first one but not a tremendously difficult one either. There was no chance for a second shot, and now Sam was really beginning to consider the jinx factor in a serious way. Two more missed birds made his mind up. He too would get rid of the gun; he'd never have missed all of those shots with his vintage Lefever.

The gun was passed around over the next three years and finally reached the stage where it was difficult to get a bid of much over \$75 for it. The jinx

theory gained credibility, as few grouse were hit with it. Finally, Webb McCoy, owner of the hardware store, took the gun on trade for one of the newly introduced 1100 Remingtons and announced he would try to sell or trade it off to someone passing through and get it out of the community. He laughed and said it was his "civic duty."



**TWO SHEETS** of newspaper were tacked onto the backstop and Tom paced off a reasonably accurate 35 yards. He slipped a shell into the right chamber and. . . .

For a long time the gun sat in the store gun cabinet, still in its own canvas case—three or four years at least. During an inventory in the early '50s, the gun was shuffled into a back corner and disappeared behind a stack of stovepipe.

In 1953 Webb McCoy sold the store to a young couple from Reading, and they didn't move or sell the stock of stovepipe for another twenty years. (Things like that happen in old country stores.) One day in 1983, a young man named Tom Davis, who had been hired as a clerk, was given the task of cleaning up the corner called the "stovepipe department." He found the battered canvas case and Newell Edgar's old L. C. Smith. The tattered tag indicated in the store code that the gun had been purchased for \$75. Tom

knew about the gun. He was Rip Davis's son, and many times as a young kid he had listened to the tale of Newell's shotgun. He also knew his father had owned it for a short time and that he was never able to shoot it with any degree of effectiveness.

Tom was amazed at the gun's thin barrels and its lightness. He snapped it to his shoulder and found the stock fit perfectly. It was as if the gun had been made for him. He remembered the old-timers speaking of the "jinx gun" that only worked for Newell Edgar, and he wondered about it. At 25, Tom was already a seasoned hunter, and while there weren't as many grouse to shoot at during the '80s as there had been in earlier years, he was a country fair wingshot. He decided he had to have that gun, and the owner of the store decided he could—for the price on the tag. In 1983, \$75 was a steal for a sound L. C. Smith. And this one was sound, even though the bluing was nearly gone and vague lines were all that remained of the checkering.

Tom could barely wait for quitting time to come on that September evening. He marked two boxes of 16-gauge number 8s on his store tab as he went out the door with the canvas gun case under his arm. He jumped into his pickup and stopped just long enough at his house trailer to pick up a couple of pages from yesterday's newspaper. He was headed for the local gun club shooting range, anxious to see how the old gun patterned.

### Two Sheets

Two sheets of newspaper were tacked onto the backstop and Tom paced off a reasonably accurate 35 yards. He slipped a shell into the right chamber and touched the front trigger when the bead appeared to rest on the center of the paper. Pow! Tom didn't have to take more than five steps toward the backstop to see the results. The center of the sheet was mostly one ragged hole about 12 inches across. The fullest full choke pattern imaginable. Anybody would sure have a tough



time hitting a close flushing grouse with that barrel!

The left barrel was now loaded and aimed at the other sheet of newspaper. Tom assumed this barrel would be just as tight or even tighter, but it wasn't. The shot holes were nicely distributed across the entire sheet, and so perfectly spaced that any bird would have difficulty flying through it.

### Dozen Old Stories

A dozen old stories drifted through Tom's head. Stories about how grouse could be missed up close or far out with that gun, and how it didn't make a darn bit of difference what kind of ammo it was fed—it simply wouldn't shoot for anyone except Newell. And the reason it wouldn't was immediately obvious to Tom Davis, who knew a thing or two about shotguns. The usual arrangement with American-built shotguns is to have the open choke in the right barrel, fired by the front trigger, and the tighter choke in the left barrel, fired by the rear trigger. This old L. C. Smith was set exactly opposite.

Tom needed a hunt or two to get used to pressing the rear trigger first, but after that his score on woodcock, grouse and anything else that flew improved markedly. The few old-timers who were still around came to consider Tom Davis in much the same light as they had Newell Edgar decades earlier. Tom was sad that his dad wasn't around to witness the resurrection of Newell's gun, but he'd died ten years earlier. The talk in the hardware store brought back the legend of Newell Edgar. "Dogonest thing I ever heard of," Sam Hartnett declared. "I bought that gun from Newell's widow and never could hit a thing with it. I sold it to Tom's dad and he didn't do any better. I don't know how many guys tried to shoot it. Young Tom here must have broken the spell. What's the secret Tom?" Tom didn't tell them.

So it still goes on the north side of Tussey Mountain. An ancient L. C. Smith double barreled 16 once more

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produces in the hands of a young hunter who knows how to use it. By some quirk of manufacture, the open choke barrel was mounted on the left side instead of the right. Or maybe it was ordered that way. Its original owner certainly knew how to get the most out of it, and so does its present owner.

But in between, for three decades, the gun was first a white elephant and then forgotten. To this day, Tom Davis hasn't told a soul why close shots could rarely be made with the right barrel or long shots with the left. Why none of the other owners bothered to pattern the shotgun strikes him as plain dumb luck. If they had, he'd never have acquired the most deadly upland gun he's ever seen. Tom explains it this way when anyone asks: "That old gun got so lonely sitting there in the store for so many years that it made up its mind to do a good job for the first person to pick it up again. Kind of like the genie-in-the-bottle story. I just got lucky."

Author's note: Don't write to me or the editor asking about where this took place. I won't tell. I have designs on that old L. C. Smith myself.



TO THE PENNSYLVANIA TRAPPER, THE fox has long represented the ultimate quarry. Catching that first fox is a measure of accomplishment for any novice trapper.

# To Catch A Fox

By Joe Kosack

THE FOX has always held a prestigious position in our outdoors. To the Pennsylvania trapper, it represents the ultimate quarry. Images of red foxes have kept thousands of youngsters staring at bedroom ceilings during the first night of the trapping season. They wonder, "Am I good enough to catch one? Will that old-timer down the road catch the easy ones before I have a chance to?"

Catching that first fox is a measure of accomplishment for any novice trapper. But does the fox—red or gray—deserve such recognition, or have trappers exaggerated the qualities of this animal?

I, too, as a beginner, had my share of problems catching fox. But my

problems came from lack of experience. "Oh, I don't have to wear gloves or odorless footwear," I said, "and I don't have to check my sets from a distance." I was wrong; dead wrong.

Another problem I had was that there weren't many foxes in my immediate location. The army of trappers that surrounded me didn't help matters either. This is a problem that faces most novice trappers: a limited supply of foxes and an unlimited force of trappers.

For years I didn't pursue foxes for fear of being shut out but times changed and so did my methods. Experience taught me that these canines deserve respect, but they don't warrant the overflowing praise that so many of-



fer. Heck, I've caught foxes with the intelligence of a 'possum. Then, too, there are foxes that still trot in Schuylkill County because they pressed my patience and won.

On the whole, intelligent animals, whether foxes or squirrels, become educated through the mistakes of the sportsmen who pursue them. A squirrel that's been shot at once while raiding a corncrib will be reluctant to enter again. A fox that's been nipped once by the jaws of a trap will be hesitant to approach a trapper's set. Call it self preservation, trial and error, or education, one thing's for sure—the animal has learned to stay clear of certain situations.

### Odors Equal Danger

Usually the fox is tipped off to a trapper's set through odors emanating from the location. These odors vary—wax, dye, human scent, gland lure, metal. Each one, or any combination, could send a fox in the opposite direction. Not because there's a trap in the ground (they're not that intelligent), but simply because it has been taught to associate danger with those special odors.

Can you imagine how confused a fox would be if it steered clear of all metal odors or human scent? There aren't many places left in Pennsylvania where a fox could avoid contact with these smells. Maybe too much emphasis has been placed on the delicate nose of the fox.

Judging from all the equipment many trappers deem necessary for fox trapping, it's a wonder anyone can afford to trap them. Of course you need the basic equipment—trowel, sifter, traps, stakes, hammer, pan covering material, bait and urine—but be wary of anything else warranted as "essential." Determine whether any added equipment will enhance your productivity. If you can't make the decision, ask an experienced trapper for his opinion on the matter.

Too many people credit all foxes with the intelligence that only a few

possess. Some foxes are smart, others are numskulls. Most "smart" ones are select individuals that have experience with trappers, not the entire species. It would be unfair to lead a novice to believe that all foxes are super animals. That isn't to say you should ever sacrifice sound trapping practices—just don't overdo things.

The first rule of fox trapping is that there are no hidden secrets to it so long as there are some in the area. Three sets are regularly used in fox trapping, the dirt-hole, urine, and flat. All produce fox, but one is drastically overused.

The dirt-hole is, without a doubt, the most productive set in existence. But it is also responsible for educating more fox than any other set. Most trappers catch their first fox in a dirt-hole and cherish the set as "the only way to trap fox." Unfortunately, after the first week of the season, most foxes have investigated at least one trapper's dirt-hole. Some are caught, others are missed. And the ones that get away don't usually come back for more. These critters learn about the dirt-hole. Especially when they see one every quarter-mile.

I steer away from the dirt-hole after the opening week and rely on the urine and flat sets. Why? Because nine out of ten trappers don't use these. Most think there has to be bait at the set to attract fox. Horsefeathers! Fox are inquisitive creatures and possess the curiosity of a raccoon. If something arouses one, he'll investigate as long as

L. E. "Monty" Close and Ed Danko, of Emporium, friends for nearly a half-century, were recently voted into the Trappers Hall of Fame. Founders in 1937 of the Pennsylvania Trappers Association, they have been officers of that organization for over 30 years. Close, now 81, is still an active trapper. Danko, 65, a trapper and raw fur buyer, is a retired civil engineer.

it's not presented in a dirt-hole after the initial week.

I like the urine set. It doesn't advertise your presence in an area as the dirt-hole does. It is quick to make, requires no bait, and rarely produces non-target catches.



**THE DIRT-HOLE set is, without a doubt, the most productive set in existence. But I steer away from it after the opening week and rely on the urine and flat sets.**

A good way of making the urine set is to use a small clump of grass as the urination area. I place two traps at the set. The first one is placed six inches away (measuring from the pan to the clump), and the second, an inch from the clump. Keep the traps roughly three inches apart.

Why use two traps? I like to increase my odds when I'm trapping foxes. Sure, I know using two traps requires more work at the set, but I'd sooner have five sets made perfectly than 20 average sets. Using two traps will increase the novice's odds, and I'm sure he'll be in favor of that. After all, it's tough enough to get that first fox, considering all the myths and fallacies the novice must cut his way through.

Two traps can also be incorporated at dirt-holes. Place the first trap, off-center, near the mouth of the hole. The second should be placed off-cen-

ter (on the opposite side from the first), five to six inches from the hole.

A good way to enhance the productivity of the urine set is to apply urine on select grass clumps or wooden posts before the season begins. This will have foxes using your special interest point as a urination station when the season rolls around, giving you ample opportunity to catch him off-guard. And that's what this whole game is all about.

Many young trappers are told that fox sets must be made in five minutes or you'll be wasting your time because you're leaving too much human odor in the area. That statement is exaggerated. I've caught foxes in sets I made two hours before dusk and spent 20 minutes creating. Sometimes it takes 20 minutes to make a fox set, especially in rocky or frozen ground. I won't abandon a surefire location because I can't complete the set in five minutes. It's better to have the set made correctly than to rush and settle for a half-baked presentation.

Fox trapping is an art, not a race. Avoid getting hung up on the time element when making sets. If you do leave too much odor at the set location, it will dissipate with time, or at least merely equal the recommendations of the five-minute-men in a day or two.

### Natural Appearance

Strive for a natural appearance at the set. After all, it's supposed to appeal to foxes, not humans. Too many young trappers get hung up making triangular trap beds and perfect dirt-holes. Unfortunately, these trappers don't realize that tidy dirt-holes don't naturally appear in the wild. Remember this one point when you step back to admire a freshly made set: it should blend into the surroundings, not stick out like a fluorescent orange hunting vest in an autumn forest.

Looking for fox sign or activity is another area where novices have problems. A lot of youngsters spend countless hours trying to uncover the haunts



of the fox. As a matter of fact, more sign is walked past than found.

Fox love to work edges. The edges of roads, fields, trails, wood lines and timbered areas all appeal to this wily canine. These borders give fox the opportunity to catch prey from two different ecosystems. For instance, a fox hunting a field/woods edge can probably stalk rabbits, squirrels and chipmunks from the woods, and mice, birds and insects from the field. Thus, on an edge the fox is increasing his productivity with minimal effort.

Foxes also like to travel the path of least resistance. Given the choice between walking through a brush-choked woodlot or down a deer trail, the fox will opt for the trail every time. They're lazy just like humans.

When stringing steel for a fox line, set your traps on fresh sign—not on hunches. Too many people get caught up studying trapping manual photos of ideal locations. These fellows set traps in similar situations without looking for sign. In fox trapping, no

location should be considered if there's no fresh sign to substantiate the effort (unless it has produced magnificently in the past few years).

Novices often set up areas that appeal to them. It doesn't matter to them whether foxes find the area appealing or use it as a convenient travel route—"I like it so I'm going to set it." Hunch trapping is nothing more than that. And more often than not, such a trapper comes up empty-handed, not to mention disgusted. So avoid the problems that plague the pretender. There are no shortcuts to successful trapping. If there is no fresh sign, move on to another area.

Hard work, long hours of observation, and experience are the common characteristics of productive trappers. If you want to join their ranks, you'll have to do time on the fox line. There are no overnight success stories in this field. It's not just buying traps and setting them. You either pay your dues or sing the blues—the choice is entirely up to you.

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# The Hemlock

By Karl J. Power

HOW MANY times have you heard sportsmen telling how they flushed a ruffed grouse, shot at a deer, or met for lunch at the “big pine tree on the ridge”? How many times were they actually referring to our state tree, *Tsuga canadensis* (Canada hemlock), also known as the eastern hemlock? The hemlock is not a pine tree. It is, however, a conifer (ever-green) in the pine family. But, there are distinct differences between the two.

Many sportsmen recognize the ruffed grouse as our state bird, the whitetailed deer as our state animal, the mountain laurel as our state flower, and so on. It's a shame that many don't recognize our state tree, which is symbolic of Penns Woods.

The hemlock's soft needles are flat, round-tipped, and less than an inch long. They are dark green on top with a smooth finish. The underside is a lighter green with two white lines running lengthwise. The single needles are attached in opposite rows, usually two rows per side.

Cones of the hemlock tree are located on the ends of the twigs. These cones are relatively small. Maximum length of the hemlock cone is only three-quarters of an inch. Discs are paper thin, as opposed to the wood-like discs of the pine.

Hemlocks thrive in moist, fertile, well-drained soil. They do better in partly shaded areas than in full sun. The hem-



lock's pyramidal shape reaches 90 feet. Its bark grows thicker and rougher with age. Limbs grow outward, long, slender and flexible. The hemlock doesn't have as many problems with insects or fungus diseases as many other tree species. It is usually plagued by only two types of scale insects, one of which is found only in isolated areas of southeastern Pennsylvania. Several types of spidermites also infest hemlocks. Fortunately, scale insects and spidermites only cause some defoliation and don't kill the tree. Hemlocks sometimes get cankers (sunken areas in the bark) caused by a fungus. When cankers girdle the branches, the sap flow is cut off and the branch dies. Lightning and wind occasionally damage hemlocks.

The aesthetic value of the hemlock is greater than its economic value. Hemlock lumber is second rate; it has a tendency to warp and splinter. The wood itself is soft, with a multitude of hard knots. As firewood, its BTU level is low. Its flame is excellent, but watch out for shooting sparks.

The hemlock has a lot to offer wildlife. Birds and squirrels nest in and feed off of hemlocks and they offer good protection for many animals seeking refuge from predators.

I like to hunt ruffed grouse in hemlock stands. The extended grouse season finds many of our state birds roosting in these trees. Grouse are hard enough to hit in open woods, but if you enjoy the challenge of bagging our top game bird under the toughest conditions, hunt them in the hemlocks.





# Maple Sugaring for Fun and Yummies

By Jim Hayes

**I**T BEGAN with a mid-February thaw relieving the interminable cold spell. Starry freezing nights gave way to mild sunny days accompanied by the steady drip-drip-dripping from icicles on the roof eaves.

Out by the woodpile a boy carelessly tossed an axe aside, grazing the trunk of a maple tree. He glanced uncomprehendingly as a wet stain spread across the bark below the gash.

Later that day his father went outside to fetch an armload of firewood. He stood transfixed as he stared at the maple. Forgetting his errand, he ran back inside shouting, "Hey, everybody, get out here—it's maple sugar time!"

So it was, and so it is.

If you grew up in a farm family which depended on that rich, golden harvest for off-season income, you'll remember it well: fetch more firewood, tote those pails, and boil, boil, boil. Day and night as long as the runs lasted.

## Oldest Homestead Industry

Today, maple sugaring remains Pennsylvania's oldest homestead industry. For thousands of individuals and families throughout the northeastern United States and eastern Canada, it's also a do-it-yourselfer's opportunity to escape the late-winter doldrums.

If you're the type who goes in for natural foods, home canning and cookouts, chances are you'll get a kick out of sugaring. The first requirement is access to a stand of maples. Ideally, these will be sugar or "hard" maples, as they produce the most sap with the highest sugar content. However, all native North American maples produce excellent quality syrup.

But before you begin cooking up an



**DRAINAGE END** of the tubing is placed in the jug opening and a string looped through the handle is nail-hung on the trunk of the tree.

anticipatory batch of pancakes, waffles or french toast, some background may be helpful.

The Indians of our Northeast were well aware of the sweetness derived from maples. They shared their knowhow with the first white settlers. During Colonial times, maple sugar and honey were the common household sweeteners because of the high cost of cane sugar. When cane sugar became more affordable, maple prod-

ucts became luxuries esteemed for their distinctive flavor.

Maple syrup sold in supermarkets today (at about \$2 per half-pint bottle) is produced by commercial sugaring operations, mostly in Canada. A number of family-run enterprises throughout New England and eastern Canada supply maple products to local and regional markets. But for every commercial operation, hordes of people go sugaring for fun and taste treats.

Maple sugar season extends from about mid-February through mid-April. It begins with a thaw when clear, freezing nights are followed by sunny days with temperatures rising into the 40s and 50s. Each sap run is invariably interrupted by steadily freezing weather or a lengthy warm spell. Runs resume with a return to daily freeze-thaw cycles. The season ends when the maple buds begin to swell, and the sap runs off-color with an unpleasant taste.



**SAP SHOULD BE collected daily and inspected for clarity before pouring it into another container for later boiling down. Sap runs vary widely from tree to tree.**

Commercial sugaring is a well-developed technology, and concentrates almost exclusively on hard maples. For do-it-yourselfers, the trick is to scale an operation to mesh with one's time, equipment, firewood supplies and syrupy expectations, utilizing whatever species of maple are locally available. This may involve tapping 10 to 35 or more trees for a seasonal yield of anywhere from a few pints to several gallons of syrup.

### One to Three Taps

Generally, any maple with a trunk diameter over 10 inches is worth tapping. If you can wrap both arms around a tree without touching fingers, it'll take two taps. The largest maples—those over 34 inches in diameter—will take three taps. The scope of the operation, then, depends on the number of taps and buckets rather than the number of trees.

Basic equipment needs are rather simple: a brace-and-bit; plastic tubing; a supply of one-gallon plastic milk jugs; a 5- to 10-gallon collecting container; a metal pot or cast iron kettle for boiling, and an ample supply of firewood.

The step-by-step procedure is as follows:

*Tapping.* First, make certain the trees you are tapping are maples. If in doubt, consult your county agricultural agent or someone knowledgeable about trees. Tap-holes should be placed on the south side of the tree. Remember, the sunny side is the runny side. (Actually, all sides run equally well, but south-facing tapholes thaw first following overnight freezes.)

With your hand-drill, bore in about waist high (this makes it easy to apply body weight to the drill) at a slight upward angle to facilitate drainage. To prevent hangups, drill in about one-half inch, withdraw and clean sawdust out of the tap-hole and off the drill bit. Repeat the sequence to a total depth of 3 inches. Clean out the hole with a narrow-bladed knife or screw-driver.



Check the sawdust to make sure it's moist. If it's dry you could be drilling into dead wood. If the temperature is above freezing, sap should begin running almost immediately.

*Placing spouts (spiles).* From your supply of plastic tubing, available at most hardware stores, cut off a 6-inch length. Tubing is commonly supplied in coils, which means each cut length will retain a slight bend, ideal for your purposes. Tubing should be of a size that fits snugly into the tap-hole. For example, half-inch tubing, when grooved, fits snugly into a hole drilled by a  $\frac{7}{16}$ -inch drill bit.

Next, cut a 3-inch groove from one end along the upper curved ridge. Insert the grooved end into the tap-hole, withdraw it to remove any sawdust, and re-insert. Now you're in business—almost.

*Hanging jugs.* By this time you should have cleaned your supply of one-gallon plastic milk jugs with hot soapy water followed by rinsings with hot clear water. Don't use jugs that have contained bleach, windshield wiper fluid, or anything unfit for human consumption.

### Cord Through Handle

Loop a length of nylon cord through the jug handle and tie the ends. Insert the drainage end of the plastic tubing into the jug opening and hang the looped cord from a nail driven into the trunk above the tap-hole. Aluminum foil squeezed around the tubing at the jug opening will keep out rain, bugs and bark.

*Collecting sap.* Jugs should be emptied daily. Sap runs range from a pint to a gallon daily, and vary widely from tree to tree and from run to run.

Before emptying each jug into your collecting container, check the sugar water for clarity. If it appears milky or has a trace of color (like weak tea), dump it and rinse out the jug with clear water; otherwise you risk spoiling a batch by adding soured sap. When pouring sugar water into the pot or kettle for boiling, strain it

through clean muslin or cheesecloth to remove any impurities.

*Boiling.* Maple sap, or sugar water, is a crystal clear liquid consisting of 90 to 98 percent water and 2 to 10 percent sucrose. The generally accepted boil-down ratio of sugar water to ready-for-the-table maple syrup is roughly 40-1. That translates to  $2\frac{1}{2}$  gallons of sap per cup of syrup, 5 gallons per pint, 10 gallons per quart, and 40 gallons per gallon.

Such odds make it economically foolhardy to use electricity, natural gas or propane to boil the sugar water. Even at nearly 25 cents per ounce it would be cheaper to buy the syrup. Besides, boiling large batches in the kitchen will turn the house into a Turkish bath.

That leaves firewood, and you'll need a plentiful supply.

Commercial sugaring operations use large evaporators to produce syrup. But boiling over an open fire



**CONCENTRATED** sugar water can be transferred to a campstove or kitchen range for final boiling. It must be stirred at intervals as the syrup thickens.

was the method used in Colonial times, and it still works today. It's essential that the boiling pot have a snug-fitting lid to keep out ashes and smoke. Otherwise the sugar water will develop an unpleasant smoky taste. Lids must be loose enough for pressure-venting of steam.

If you build a roaring fire, wait until it settles before beginning a boil-down. Add only enough wood to maintain a steady fire hot enough to generate moderate boiling. A vigorous, roiling boil means the fire's too hot; remove the pot until it subsides. Periodically, lift the lid briefly to skim off foam or scum with a strainer.

### Theory Impractical

In theory, a batch of sap should be boiled to finished syrup without replacing sugar water as it evaporates. That's fine if you own enough kettles or a big enough kettle to boil a 10-gallon batch to produce a quart of syrup daily. But it's impractical in smaller scale operations using several readily available 12-quart canning kettles. Under such circumstances it's permissible to keep adding sugar water so long as it's fresh and clear. Batches can be boiled down to several quarts of concentrated sugar water, which can be transferred elsewhere for a final boil-down under more controlled conditions. When transferring concentrated sugar water to a clean pan for final boil-down, strain it through cheesecloth or muslin to remove sediment.

The final boil-down can be done in-

side on the kitchen range or outside on a camp stove. By this time the sugar water should have a distinctly sweet taste, but be alert for any unpleasant off-taste which will mean that you've wasted time and effort on a soured batch. (This can be avoided by periodic sampling.)

As the concentrate thickens, stir it, especially where it foams along the sides of the pan. Eventually the thickening syrup will take on a rich golden color. At that point your only remaining decision concerns desired consistency, remembering that the syrup will further thicken when placed in the refrigerator.

Finished maple syrup can be transferred to any glass or plastic container. Like honey, it will keep almost indefinitely under a tight lid.

At the end of the season when you pull your nails and tubing spouts, do not plug the tap-holes. Forestry experts claim that plugging interferes with the natural healing process.

Tap-holes can be used only once, and must be placed elsewhere on the trunk the following year. Using the methods described here, a healthy maple can be tapped year after year without injurious effect.

Maple sugaring is as much an art as a science, particularly when done on a small scale. Through experimentation you'll gradually learn what works and what doesn't. In the process you'll discover an enjoyable outdoor activity, plus a 100 percent pure maple taste treat that simply can't be matched by any "store-bought" syrup. Enjoy!



**OCCASIONALLY**, small animals struck by vehicles survive, usually through luck. This bobcat made it because of the skill of Dr. Kenneth Felix, Erie veterinarian. When brought in by DGP Wayne Lugaila, it was found to have two damaged hip sockets. Dr. Felix, who has often donated his services to the Game Commission, rebuilt both sockets. After three months of recuperation in the Erie Zoo, the bobcat was released in the wild.



# Third Time's a Charm

By Dennis Fike

THE DRIVERS had just given their first hearty yells when I glimpsed a deer racing through the corn stubbles. A motion to Carl, not far away, that it was a baldy, and then a quick look back to where I thought it had come out of the redbrush. Was that another deer? Then I saw antlers. A quick look through the scope confirmed it was a nice buck. At the crack of the 308, the 8-point was down for good.

"I got him!" I hooped, jumping from the stump to claim my trophy. As I began to fill out my tag, I thought about the first week of the 1984 deer season.

It had been frustratingly different this year. The absence of snow, although seeming to hamper most hunters, had actually been no problem for us. I had personally seen three nice bucks the first day and had been seeing deer all week long. Three of the six members of our group had taken deer the first morning, and one of those was a huge 8-point. My thoughts drifted back to the day it had all begun.

Only the slightest glow of light was visible in the east as I hurried through the cornstubble and into the woods to my "first morning" stand. On this hillside outside Meadville I had killed a 7-point the season before, and preseason scouting indicated it would be good again this year.

It didn't take long for the action to start. Several shots ushered in the season, and at about 8 o'clock two shots echoed through the woods close to where I thought Carl was. Then five quick shots rang out from the field I had crossed earlier. All of a sudden there was a crashing in the brush. I concentrated on an opening just below

where the sound had come from, expecting a deer to come through any moment. For what seemed an eternity, nothing appeared. Then I saw him. He was in almost the same place as the buck I'd taken the season before. His antlers gleamed in the sunlight. The only part that presented a shot was his neck. Should I wait for a better shot?

The deer began to move, so I placed my crosshairs on the white throat patch. With the scope cranked up to 9x, every detail was so clear it seemed like an easy shot. I fired, then stared in disbelief as he exploded out of the brush and ran down the hill. I couldn't believe he hadn't collapsed in his tracks. I hesitated so long I didn't even have time for a follow up shot.

## Not Hit Where Standing

Running to the place he'd been standing when I shot, I found a blood trail. There was also a blood trail leading in from the field. That meant he must have been hit while running across the field. A closer check showed no sign of a hit where he was standing when I shot. I started trailing him down the hill, guessing he would cross the road into a section of posted land. I saw a flash of his tail as he jumped into the woods on the other side of the road, and shortly two shots rolled across the road. I learned later in the day that the property owner had gotten him.

It was about time to meet Carl, so I started to still hunt toward him. This produced a view of the tails of two does and a fleeting glimpse of one of the biggest bucks I had ever seen, but no chance for a decent shot.

I met Carl and we made a quick trip to the car, finding out that his dad had



BOB CAMERON, of Churchview Avenue, Pittsburgh, sent us this drawing and asked if we could use it and dedicate it to his father Harold, who taught him to enjoy and appreciate the outdoors. We feel it's a fine illustration and hope you agree.



gotten a big 8-point and his brother a 7-point. Everyone in our group either had shooting or had seen deer, and it was only 10 a.m.

The next drive chased a buck right past Norm. His shot went a bit low. We tracked it up the side of a hill which I had just come down, but lost the trail near the top. We were able to pick up fresh tracks in the mud of the corn-stubble, and saw it had headed straight for the next area we were going to drive. We decided to drive it before we took the other two deer back to the house.

I had just heard the drivers start when a deer came angling through the woods toward me. I saw horns, pulled up and fired. As it ran down toward Norm, I waited for it to drop. It just continued on its course. Seconds later a shot rang out, followed by, "I got one." Norm had killed the deer he had wounded earlier, and somehow I didn't feel too bad about missing that one. I was beginning to doubt the accuracy of my 270 though.

The remainder of the day was uneventful, and a change of guns during the week helped to bring back my confidence. I had killed several deer with the 308 carbine in other seasons, and it was extremely accurate.

The week passed quickly. I hunted every day after school, and often found myself daydreaming of where I was going to hunt when I should have been concentrating on what I was going to teach next.

Saturday morning found us driving back to Meadville. This time my dad was along, hunting with me for the first time in twelve years. At least maybe he would get lucky. I began to feel all my luck had been used up the first day.

We drove several good size squares early, but the only thing we saw were more hunters. Several reported seeing a nice buck in the area that week, but with all the hunters around and no shooting, we decided he must be hid-

## **GAMEcooking Tips . . .**

### **Easy Barbecued Venison**

- 3 lb. venison roast
- 1 16-oz. can peaches with juice
- 1 14-oz. bottle ketchup

Blend peaches and ketchup in blender or food processor until smooth. Pour over meat. Bake covered in a Dutch oven at 200° for a minimum of one hour per pound. Can also be cooked in a slow cooker set on low for five to six hours, depending on size of roast.

Gauge cooking time according to the size of the meat. Allow about twice the time you would for beef, at half the cooking temperature. Slow simmering brings out barbecued flavor.

*Note:* Start with this recipe, and its success will motivate you to cook more game. This is an excellent barbecue sauce and almost too easy to believe. Use it on pork, chicken, or beef. It makes excellent barbecued spareribs and barbecued chicken. Serves four.

—FROM WILD GAME COOKERY  
BY CAROL VANCE WARY

ing in one of the smaller squares. A small patch about 100 yards long across the road was our first choice.

The little strip of redbush didn't look like much, but tracks all over the surrounding field showed where the deer had been feeding at night. As I climbed up on the stump and listened for the drivers to begin their chant of "Ho, Buck," I wasn't ready for what would happen next, let alone how fast it would occur. . . .

Now, bending down to tie the tag on my buck, I looked at the 8 long tines, the front two almost touching as they curved around. As my dad and hunting buddies gathered to offer their congratulations, I couldn't help thinking the old saying was true—the third time's a charm.

# Fifty Years of Cooperation

By Bob Mitchell

Assistant Editor  
GAME NEWS

**P**ROVIDING areas for public hunting was among the top objectives facing the Game Commission when it was created in 1895. In 1915 the Commission began leasing land for refuges, parts of which were opened to public hunting. In 1920 the agency began purchasing land—State Game Lands—specifically for wildlife and public hunting.

Although hard to imagine now, even back then, when the number of licensed hunters was less than half of today's, many hunters had difficulty in finding places to hunt. This problem was especially acute around urban areas. It was obvious that purchasing was not the sole solution. Enough land to satisfy the needs of a half-million sportsmen could never be afforded. Early on it was apparent that private landowners would have to cooperate if the state's growing hunting fraternity was to be adequately served.

## Other State's Programs

Former Commission Secretary Seth Gordon and Commissioner Nicholas Biddle began evaluating public access programs in other states. They must have been impressed with Michigan's because they arranged for University of Michigan Professor Howard Wright, who had developed a cooperative access program there, to come to Pennsylvania and help implement one here.

Upon his arrival Professor Wright visited farmers in southeastern Pennsylvania to learn how they felt about hunting and wildlife on their properties. He discovered safety and concern

for their property were the primary reasons most landowners were reluctant to open their lands to sportsmen.

Using this information, Professor Wright and Game Commission officials developed what has become the Farm-Game Cooperative Program. This plan included a list of actions and initiatives which they hoped would encourage landowners to permit hunting and trapping.

The agency wanted farms enrolled in groups consisting of at least 1000 acres. Each group could then be most efficiently managed as a Farm-Game project. Because public hunting grounds were needed most around Pittsburgh and Philadelphia, the Farm-Game program was initially limited to developing projects in Butler, Washington, Allegheny and Greene counties in the southwest, and in Bucks, Chester, Delaware and Montgomery counties in the southeast.

The proposed incentives were designed to ease the concerns of landowners and to benefit hunters and wildlife. To ease concerns about safety, the Safety Zone Law was enacted. This law, which applied to all properties, made it illegal to discharge firearms within 150 yards of occupied buildings without advance permission from the owner. A \$25 fine was established for this offense, and it has remained at this level ever since. (In the current draft of the new Game Law being prepared by state legislators, this penalty has been increased to \$100.) When a landowner joined the Farm-Game Program, the agency posted his property with signs remind-



ing visitors to park in inconspicuous places, to stay out of unharvested grain fields, to stay outside of safety zones, and to be careful around ranging livestock. To further alleviate concerns about unlawful and unethical acts, landowners were told district and deputy game protectors would routinely patrol properties in Farm-Game projects.

Two provisions were made to benefit hunters. Cooperators were given the opportunity to raise ring-necked pheasant chicks. They were paid \$1 for each one released as an adult. Also, properties enrolled in Farm-Game were stocked with game supplied by the Commission.

For wildlife on cooperators' properties, the Game Commission offered to plant tree and shrub seedlings, establish wildlife food plots, and cut browse around field borders. Also, cooperators were offered technical assistance to help implement soil conservation and wildlife management practices on their properties.

### First Farm-Game Program

The first Farm-Game project was established in 1936. It consisted of ten connecting properties in Chester County, and totaled 1507 acres. Twenty-five more projects, encompassing twenty-six farms and 29,700 acres, were established the next year. In 1938 another thirteen counties were added to the list of those where projects could be established, and by 1940 Farm-Game projects were being considered in twenty-seven counties.

By 1945, after ten years, cooperating landowners, sportsmen and the agency were all so pleased with the success of this cooperative program that the decision was made to permit the establishment of Farm-Game projects on agricultural areas throughout

the state. By 1947, ninety-one projects comprising 3432 farms and totaling 299,224 acres had been developed. The Game Commission was developing projects as quickly as finances permitted, but not fast enough to keep up with the demands of landowners who wanted to join. This problem was largely rectified in 1948, when the Game Commission began using Pittman-Robertson funds to help administer Farm-Game. These federal funds have been used for this purpose ever since. Where these funds come from and just how they were and are being used was explained in the November 1985 issue.

### Safety Zone Program

As the program grew it became apparent that many landowners willing to participate were prohibited because of the stipulation that properties had to be part of a group totaling at least 1000 acres. In 1955 the Game Commission informally began distributing Safety Zone signs to those who opened their land to sportsmen but couldn't qualify to join a Farm-Game project.

Even this small gesture was so popular that in 1958 the agency formally adopted the Safety Zone Cooperative Program. Landowners owning at least 50 acres are eligible to participate. In return for keeping their properties open, cooperators receive increased



**THE Safety Zone Law was a key component in the Game Commission's public access program. This law alleviated most safety concerns landowners had for their families and properties.**

law enforcement, Safety Zone and other information signs for posting, tree and shrub seedlings for habitat development, and technical assistance.

In 1958, 1771 landowners enrolled, providing sportsmen with 248,201 acres. This program appealed to so many landowners that, by 1960, 5700 landowners had joined and Safety Zone acreage went over the million mark.

In 1971 the Game Commission rounded out the cooperative concept when the Forest-Game Cooperative Program was initiated. This program is similar to the Farm-Game Program, except that it's designed for owners of large forested tracts. Most of the cooperators in this program are forest companies, but a few private landowners also participate.

These three programs have been modified over the years to keep pace with changing times. The Safety Zone Law was strengthened in 1947. In addition to prohibiting shooting in a safety zone, it became illegal to hunt, chase or disturb animals within 150 yards of occupied buildings. No longer are efforts made to remove predators from cooperators' properties. And,

among other modifications, cooperators can now retain trapping rights for themselves if they desire.

Further emphasis is going to be placed on developing more wildlife habitat on cooperators' properties. The Game Commission is already developing and promoting cost effective conservation techniques farmers can incorporate into their management plans to provide food and cover for wildlife. Landowners are encouraged, for example, to protect wet areas, plant hedgerows, leave odd areas uncultivated, and adjust cutting schedules to minimize detrimental effects to nesting wildlife. In addition, the agency is exploring a variety of incentive programs to further encourage farmers to develop more wildlife habitat. Despite these changes the basics remain the same: cooperators are opening their properties in exchange for respect from users.

Today, 20,242 landowners permit hunting on 2,371,600 acres through the Farm-Game program; 9,399 landowners owning 1,495,804 acres are enrolled in the Safety Zone program; and thirty-two cooperators have opened 630,107 acres in the Forest-Game program.

The success of the Pennsylvania Game Commission's three cooperative access programs can be largely attributed to the generosity of cooperators and to the dedication of all the Game Commission representative—especially deputy game protectors and Food and Cover Corps employees—who have strived to promote and uphold the agency's part of the bargain.

But sportsmen deserve a great deal of credit, too. In enlisting cooperators, the agency attests to the belief that sportsmen are honest, upstanding and respectable. Landowners are told they



**BARRY JONES**, Southeast Region Land Management Supervisor, inspects a plot planted with the agency's seed mixture. In 1985, 50,000 10-pound bags of this proven seed mix were given to cooperators and sold to others who wanted to provide wildlife food and cover on their properties.



need not be afraid of opening their properties to hunters and trappers. The success of these programs proves the soundness of this belief.

Sportsmen must continue to live up to this bargain if these programs are to remain viable and keep growing. Just because a person belongs to one of the Game Commission's cooperative programs does not mean hunters and trappers have no responsibilities. Ask permission. Everybody should appreciate and understand a landowner's right to know who is on his property. Respect fields, fences and livestock. And under no circumstances endanger or frighten other people on the property. Commonsense is all that's asked of hunters and trappers.

The Game Commission reciprocates by providing intensive law enforcement to protect the owner's interests, technical advice, materials, and sometimes labor to help cooperators de-

velop wildlife habitat on their lands.

Sportsmen also should reciprocate. Years ago, some were able to lend the farmer a helping hand during the busy seasons. In most circumstances this isn't practical today. A thank-you card or game offering is as appropriate as ever, though, as is any other small gift—except GAME NEWS. GAME NEWS has always been given cooperators as an agency's gesture of appreciation.

Only seventeen states are smaller than ours, but none has more hunters. Despite the many acres of public land open to hunting and trapping, it's only because of the 30,000 landowners who have opened up 4.5 million acres of private land that the needs of so many sportsmen are being provided. Sportsmen have determined the success of the agency's public access programs in the past and such will be the case in the future.

Selected facets of the Pennsylvania Game Commission's Bureau of Land Management have been covered in GAME NEWS over the past several months. After a brief history of the agency's early attempts to provide land for wildlife and sportsmen, an administrative outline summarized how the Bureau of Land Management's responsibilities and activities have grown dramatically over the past ninety years. Then after covering the agency's current land acquisition goals and philosophies, the fundamental principles governing wildlife management on State Game Lands was presented. The Game Commission's use of federal funds was followed by an article on how the agency enforces environmental protection laws and regulations. In this concluding article, the agency's efforts to promote wildlife management and hunting and trapping on private properties are covered.

Bureau activities not covered in this series should be considered no less important. Emphasis was placed on those aspects that most directly affect the public.

In 1906, wildlife management con-

sisted of surrounding leased properties with a single strand of wire. Today, the Pennsylvania Game Commission owns and scientifically manages 1.3 million acres, and has agreements with over 30,000 landowners to provide for wildlife and sportsmen on over 4 million acres of private land.

In 1906, officers patrolled on horseback. Today, highly trained natural resource specialists work to protect wildlife from unrelenting habitat destruction and a host of other complex environmental problems; at the same time, the needs of over a million licensed hunters and trappers and countless other outdoor enthusiasts are accommodated for.

The accomplishments of the Pennsylvania Game Commission undoubtedly have exceeded the imaginations of the hunters and shooters who lobbied to have the agency created ninety years ago. In all probability, accomplishments we can't imagine now will be attained over the next ninety years. Sportsmen support has brought us this far. Sportsmen support is all that's needed to carry us successfully into the future.





Nick Rosato



# Three Bunnies Before Brunch

By George L. Harting

**D**EEER HUNTERS like at least a tracking snow, and a white Christmas for the kids is always nice. But these desirables can evolve into blizzard proportions and put a crimp in late season small game hunting. Nevertheless, our recent year's end weather denied any of these conditions and offered a second chance bonanza for the cottontail hunter.

The holiday season guaranteed for me more than a New Year's resolution; it marked retirement from a professional career, and midway between the Holy Night and New Year lay the birthday that triggered official senior citizenship and time options. I hoped to make the most of these at the North Ten in Sully Country. To guarantee this, the duffle bag stuffed with my tattered duck hunting outfit, some reloads, and the light 20-gauge pump were deposited in the car trunk.

A variety of scheduled events hinted that December 27 would trigger a week of celebration. Included in the holiday's bounty was warming the completed house my daughter and her husband had built. The family sharing would include extremes: my new grandson would be in the party, and my wife's mother, who will mark her 91st birthday, would hold the seniority position.

Darkness had fallen over the northeast before our arrival. As the car lights illuminated the brush-lined driveway of the abandoned orchard, three cottontails scampered for cover before we reached my kinfolk's cottage. Visions of more than sugarplums appeared during the night, for weather reports were favorable for a good late small game season opener.

My cot was set close to the hearth. At 6 a.m. my obviously pregnant daughter staggered by my bed to throw another log on the fire. My inquiry about when dawn would occur, and her answer, furnished conclusive evidence that no hunter's breakfast was in the offing. I took consolation, however, in the reports of kennel owners who insist that hungry dogs give the best chase; perhaps a hungry hunter, I thought, could also do the straightest shooting.

## Balmy Day Promised

I was lacing my brand new Bean hunting boots as a blood red sunrise appeared on the eastern horizon; a balmy day was promised for northeastern Pennsylvania. The nine-inch snow which had fallen the week before was completely gone, and vegetation in general appeared as it had in late November. It offered substantial cover for rabbits. My hunting terrain included, in addition to the old orchard, a series of woodlots where some timbering had left a number of overgrown brush-heaps. The prognosis seemed promising.

Heavy frost had developed during the night, however, giving hope that rabbits would be squatting. It was the kind of condition my father anticipated; he would hunt the frosted pastures and pick the eyes from squatting rabbits with his old rust-bore 12-gauge single.

The reclamation of the North Ten included gardening, planting some new fruit trees, and establishing lawn; two acres were dedicated to field corn, and brush had been cleared to make room for operating an apiary. This



**THE SECOND cottontail broke at top speed through the sumac. My snapshot proved ineffective. I guessed he would cross the old wagon trail; that would offer an easy shot.**

combination of land use is particularly inviting for woodchucks and briar rabbits; matter of fact, the proliferation of both species had reached nuisance proportions, and the unfenced garden hadn't had a chance the previous summer.

Let it not be assumed, though, that the setting domesticated either of these game species. That can happen though. I remember a setting in one of our state parks where a tamed woodchuck called Harve took refuge under the oar house by the dock. The critter would come when called by the attendant and cleaned up any lunch leftovers, including such items as cheese and macaroni. But on the North Ten, the woodchucks' sharp eyesight sends them scampering for shelter at even the slightest disturbance. Cottontails pasturing on lawns and feeding on fallen apples by night retain their skittish nature; they take refuge in the burrows where the woodchucks are now hibernating.

After fifty years of campaigning with cottontails, I was sure that not all the rabbits were in groundhog holes. Those that remained above ground,

however, would be squatting in the tangle of blackberry bushes, multiflora rose and sumac. I had my work cut out for me. My ally was the mild December weather that can cause even a veteran cottontail to become careless.

A rugged boulder strewn hillside with patches of brush and gnarled apple trees lies between the public road and the homestead driveway. It was into this rugged area the three cottontails had scampered for shelter upon our arrival the night before. Here I began my campaign. Light was still dim at opening hour, but I elected to get on with the business at hand. As I made the turn into the brushy area bordering the apiary, the first ball of cotton streaked out well ahead of me. The report of my 20 only hurried its escape, but the exposure proved, indeed, that some targets would be available.

This tract of land is bounded by ancient stone fences against which, through the years, brush cuttings had been piled. To tramp the piles requires fighting through thick briars, and good shooting is usually difficult. I was still short of the heaped choppings when the second cottontail broke at top speed through the sumac. My snapshot proved ineffective. I immediately guessed the rabbit would cross the old wagon trail; that path would offer an open shot. A moment later, the shot was fired, the cottontail did a double-tumble and lay motionless.

### **Worthwhile Adventure**

Carefully my game was field-dressed, and for lack of a buddy to oblige, I had to congratulate myself for exercising good strategy. Since I was still near the house, I elected to carry my game back rather than pocket it. The cottontail was laid on the firewood which was stacked in orderly fashion beside the back door. As I retraced my steps to resume the hunt, the good feeling of worthwhile adventure set in.

Two fields of heavy unmowed vege-



tation presented a challenge. Could it be, I wondered, that after feeding during the night the rabbits would take shelter under the tangled grass? Considerable time was given to investigating the fields, but to no avail.

Considerable time had been consumed by now, and with the pangs of hunger gnawing, I elected to circle back through the maple grove. Adjacent to it lay an ancient untended orchard which offered briar clusters, fallen fruit trees and scores of woodchuck holes. If one wished to see typical cover for briar rabbits, it certainly stretched ahead of me.

The first overgrown brush heap produced a rabbit, and he made a big mistake. After his exit from the brush, the animal seemed bewildered. A momentary pause offered a head shot, and I pocketed what I call an "eatin-rabbit." The adjacent heap of brush was equally fruitful but the marksman was faulty, and it just may be that the critter is still running. Sensing that the brush heaps were the places to find rabbits, I adjusted my hunt accordingly. Contrary to the usual that day, however, a fat old rabbit broke out of high grass and hightailed it over a rock ridge. As the 20-gauge barked a single shot, that old-timer flipped and additional weight sagged my game pouch.

The procedure continued and climaxed as I struggled under a fallen apple trunk totally fringed by blackberry briars. In that awkward position, I routed two rabbits from their hiding. They were gone in a flash while I struggled to shoulder my gun. Three hours had elapsed; I had encountered seven rabbits and managed to take three of them. When I arrived

home, the two I was carrying were neatly laid on the woodpile beside the first.

"Where have you been, I thought you got lost," was the greeting the lady in my life offered as I walked into the kitchen. To which my son added, "I heard you shooting and expected Jonathan would be awakened." Jonathan is the seven-month-old grandson who already had been driven out-of-sorts by the holiday schedule we imposed on him.

### A Calm Nothing

I calmly answered "Nothing" when my wife inquired if I had experienced any luck. That little untruth was prompted on two counts: First, success afield, I insist, is not contingent upon luck, it's skill that bags the game. And second, I figured the kind of greeting I got after a perfect morning didn't deserve the truth.

The cook messed up the frying pan for a second time that morning, and a hearty brunch of bacon and eggs with toast and unadulterated maple syrup derived from the very woodplot I had hunted satiated my hunger. After the inner man was satisfied, I directed the cook's attention to the woodpile and my game. Reprimands followed for not having told the truth, and the question was posed, "How could you get three bunnies before brunch?"

My answer was simple: "You've gotta be dedicated."

It's a real bonus for the small game hunter when the weather cooperates during the late season. And it's an added favor when those new Christmas boots can be broken in and made ready for spring gobbler season.

## Thoughts While Walking

*Ice is the silent language of the peak; and fire the silent language of the star.*

—Conrad Aiken

# Prescribed

By Lincoln La



**EXPERIMENTAL** prescribed fire is being tested by the Game Commission to enhance food and cover on small scattered clearcuttings such as this one.

**P**RESCRIBED BURNING is a scientific wildlife management tool being used on a limited basis by the Pennsylvania Game Commission. This method of habitat manipulation is an accepted management practice in many southern and western states for creating better habitat for a variety of game species. In the northern states, burning is used primarily to regenerate aspen and birch trees. In Pennsylvania, it is being used effectively to regenerate early plant succession species, particularly blueberries, birch and aspen.

Prescribed burning on State Game Lands is helping to create better habitat for the ruffed grouse and the elk. Areas that have been burned will establish additional brood cover for grouse chicks. As the grouse prefers vertical to horizontal cover, burning rids the plot of unwanted and horizontal slash. Additionally, burning helps



**USING A DRIP TORCH,** straight line across the

to regenerate the blueberry bush, a preferred grouse food which is also used extensively as brood cover. In late summer and early fall, the leaves and fruit are eaten by grouse, as are the dried berries and buds during winter.

In 1981, 88 half-acre plots were cut by Game Commission personnel with the intention of prescribed burning on selected plots in subsequent years. In 1984, two plots were burned as the first experimental work on State Game Lands 91 in Luzerne County.

Planning is vitally important in prescribed burns for wildlife. Areas may not have excessive fuel (downed wood); for safety purposes, a four-foot fire lane must be bulldozed around each plot; adequate manpower must be available on the day of the burning,



**PROPER** equipment and trained personnel are prerequisites to prescribed burning. Also, burning may be done only when weather conditions are acceptable.



# Fire Burning

and J.R. Fagan



Fire boss lights a fire in a width of the clearcutting.



**STRIP BACKFIRES** spaced 5 yards apart quickly burn over the area to the bulldozed fire line.

eter of the plot prevent the fire from jumping the fire lane.

Surveillance continues on the area until all burning debris has been extinguished. When the mop-up is completed, the crew moves on to the next area to be burned.

Prescribed burning has been used successfully in many states to improve wildlife habitat. We are confident the work being done in Pennsylvania will have similar results.

Lincoln Lang is a Game Commission wildlife biologist in the north-eastern part of the state. J.R. Fagan is regional director of the Commission's Northeast Region, with headquarters in Dallas.

**ONLY A FEW** minutes after the start, the last of the fire is extinguished by the mop-up crew.



and proper firefighting equipment must be on hand. Additionally, the project must be coordinated with the DER's Bureau of Forestry so they are aware of the burning procedures as well as the day that the burning will take place.

Weather conditions are critical if proper results are to be achieved. Air temperature must be 50 degrees or above; wind velocity must not exceed 10 mph, and relative humidity should be between 30 and 50 percent.

Only when all of the above procedures have been followed and the conditions met, may the fire be started.

Approximately five yards upwind from the fire lane, the fire boss starts a fire strip that will burn toward the safety strip. The next strip to be burned is started about five yards upwind so it will burn to meet the first strip. This method is called a "strip back" fire. The procedure is followed until the entire half-acre plot has been treated. Crew members on the perim-



# FIELD NOTES



## The Good Side

While removing a "nuisance" beaver dam recently, amid comments that beavers causing nothing but damage, an unusual bird landed not more than 20 feet from us as we worked. When I identified it aloud as being a green heron, the complainant said, "Oh, so that's what they are. We've enjoyed seeing a number of them around here lately." I quietly pointed out that if the beaver hadn't created a suitable environment, the heron wouldn't have been there. Beavers aren't all bad, even when they do find our road culverts. — LMO Jerry Becker, DuBois.

## Checkoff

**CLEARFIELD COUNTY**—With state income tax time here, now's your chance to do your part for Pennsylvania's wildlife. You can elect to have a portion of your tax return go to benefit the fish, wildlife and endangered plant communities that all of us so enjoy. So, when it comes tax time, *do something wild*. — DGP Jim Neely, Penfield.

## A Ball of Feathers

**FAYETTE & SOMERSET COUNTIES**—One meaning of the word conservation is "make wise use of." While checking timber sales with Regional Forester Don Little, we observed a mother grouse and her chicks "making wise use of" a dust spot on a game lands road. The birds were packed tightly into a dust spot only 18 inches in diameter. Until they moved, it was impossible to tell how many chicks there were. (Eight.) — LMO Barry K. Ray, Rockwood.



## Or Just "Goose"

**SNYDER COUNTY**—Rising Canada goose populations have brought a corresponding increase in the number of damage complaints. To help combat this problem in our region, a special goose-trapping team was established, of which I am a member. Naturally we thought every such team should have a name. So if you have a goose problem in your area, now you know who you're gonna call—Goose Busters! — DGP John Roller, Beaver-town.

## And Will Be

**TRAINING SCHOOL**—A major part of our training curriculum involves spending most of the fall—mid October to mid December—on what is known as "Field Training Assignment." Each of us spends two to three weeks with four different district game protectors. This apprenticeship is undoubtedly the best way to get practical field training. After spending some time on field training assignment, one thing has become very evident: the dedication the game protectors, deputies, land managers, and supervisors have for Pennsylvania's wildlife. The future of our wildlife is in competent hands. — Trainee John McKellop.



## A Fine SPORT

Milton T. Moser, 14, who lives in Point Marion along the Monongahela River, can be described as an avid duck hunter. He even bought a federal duck stamp even though he could hunt legally without one, because of his age. The only catch to his being a seasoned, died-in-the-wool, last-one-out-of-the-swamp duck hunter, is the fact he had never bagged a duck.

One day when Tom, as he's known, was out hunting, he found a woodduck along the shore, tangled in a plastic 6-pack holder. The holder was over the duck's head and one wing. Tom caught and freed the duck from its predicament. Now, even though Tom has had a duck in his possession during duck season, he's still looking forward to harvesting his first wild duck. — LMO  
R. B. Belding, Waynesburg.

## What's a Few Letters?

**ARMSTRONG COUNTY**—A caller recently requested an application for a “perpetrator's permit.” This really threw me because in law enforcement jargon, perpetrators are the guys we try to catch—and few of them call to request a permit. We finally agreed that what he wanted was a propagator's permit, which is a far more common request. — DGP Al Scott, Rural Valley.

## Ready to Help

**CRAWFORD COUNTY**—I was impressed with the fact that the Federation of Sportsmen's Clubs, along with a local affiliate up here, each raised and donated hundreds of dollars for the Tornado Victim's Relief Fund. These sportsmen expect nothing in return. They wanted only to help people who were victimized by the tragic weather that hit northwestern Pennsylvania. These generous acts should surely be applauded and appreciated. — LM Keith Harbaugh, Meadville.

## Words of Wisdom

**TRAINING SCHOOL**—While participating in a hunter education course this past fall, I was surprised to find among the students a 70-year-old woman. When I asked her after the class why she had enrolled, she told me, “You're never too old to be reminded about safe gun handling.” — Trainee Peter F. Aiken.



## Working Together for Wildlife

**MCKEAN COUNTY**—A lot of people have expressed appreciation for the bluebird houses the Smethport High School woodshop made for the Safety Zone Cooperators. I've learned that besides the numerous bluebirds using the nest boxes, tree swallows, white-breasted nuthatches, housewrens, deer mice and flying squirrels also raised families in these boxes. — DGP John Dzemyan, Smethport.

## Be Thankful

**FULTON COUNTY**—I had just purchased an elaborate camera outfit, so decided to put together a slide program on the Forbes Trail. I made a 150-mile round trip to Fort Ligonier to take pictures, but later found out I had spent the whole day shooting blanks—I hadn't loaded the film properly. It's a good thing I wasn't in charge at Ligonier years ago; if I had been, we'd all be speaking French today. — DGP Mark Crowder, McConnellsburg.

## Almost

A catastrophe was averted recently when Harold Haas, a sharp-eyed Food and Cover foreman, noticed an unfamiliar cutting crew preparing to remove the vegetation under a powerline which traverses a Game Lands. Fortunately, Harold stopped them before they cut the only viable, seed-producing grove of sawtooth oak on the entire State Game Lands network. If Harold had not passed that way, or had been preoccupied and not noticed what was about to happen, this unique resource would have been lost for twenty years, until a new grove matured. This nearly happened because the cutting crew arrived a day earlier than scheduled, before their supervisor had been briefed on the uniqueness of the vegetation which flourished under the powerline. — LMO William J. Lockett, Perkasio.



## Waited Too Long

**LUZERNE COUNTY**—There hadn't been a call on my answering service as of 6:15 p.m. on July 4 when my wife and I left for a cookout. At 9 p.m., we returned and the following message had been left: "There's a dead deer lying along the road. The smell is terrible! It's been there for 12 days. Please pick it up." I limed it the following day, but this could all have been avoided if I had received the call 12 days earlier. — DGP Robert W. Nolf, Conyngham.

## And It's Working

**CLEARFIELD COUNTY**—The SPORT program certainly seems to be working here, judging by the number of calls I am receiving from people who are tired of watching the wildlife thief in action. I want to thank all of you who have become involved, proving the SPORT program can work. — DGP Don Zimmerman, Morrisdale.



## Soaring Numbers

As I approached my crew headquarters one spring day, I saw four red-tailed hawks perched in trees and on the wires within a half-mile of the building. And when I arrived at the building I saw seven more hawks in the air at the same time. One was a marsh hawk, another a rough-legged, and the remainder were red-tails. It is quite apparent that another hunting fraternity (our birds of prey) is reaping the benefits of our land management practices on the Blue Marsh Area. — LM Stephen L. Opet, Tamaqua.

## Common Interests

**CENTRE COUNTY**—I've manned quite a few exhibits for the Game Commission, at fairs, malls, and other gatherings over the years, and it's been my experience that one of the most congenial, interested and concerned groups are the farmers we meet each year at our Ag Progress Days exhibit. — DGP Jack Weaver, Bellefonte.



## Bushed

**TRAINING SCHOOL**—On the first day of my field assignment with DGP Don Zimmerman, Clearfield County, I immediately became acquainted with the proper procedure for processing a roadkilled bear. As Officer Zimmerman demonstrated how to skin a bear—it weighed 125 pounds—he assured me the next one was all mine. Several days later my turn arrived. We responded to a call and found a 450-pound bruin in the bucket of a farmer's front-end loader. Many hours and knife sharpenings later, I finally was able to sit down and admire my handiwork—and thank my lucky stars for modern steel, Arkansas stones and honing oil. —Trainee Richard F. Weaver.

## City Fella

**ALLEGHENY COUNTY**—The white-tailed deer has a propensity for expanding its range throughout the suburbs of Pittsburgh. That's not really unusual, as most of the suburbs offer parcels of hospitable habitat. One deer, however, did take its explorations to the extreme. It was greeted by skyscrapers, concrete, traffic lights and, unfortunately, an automobile. A 6-point buck was picked up by Deputy Don Suley within one-half mile of Pittsburgh's Civic Arena. —DGP S. E. Lockerman, Pittsburgh.

## Good & Bad

**BRADFORD COUNTY**—Sally Robertson is a Rotary exchange student from South Africa who is attending the Northeast Bradford High School. She has a vest covered with buttons collected in her travels throughout the country. Hunter Education Instructor George Knecht recently gave her two SPORT buttons for her collection. He reports she was thrilled, as they were the first buttons she had received pertaining to conservation.—DGP A. Dean Rockwell, Sayre.

## Crowd Pleaser

**VENANGO COUNTY**—The Game Commission program that generates the most interest from the nonhunting public is our Working Together for Wildlife seedling sales program. It not only gives everybody an opportunity to buy trees and shrubs to provide wildlife food and cover, but also provides us an opportunity to discuss the agency's many other wildlife management programs. —DGP Leo Yahner, Franklin.

## Or a Crowd

**TRAINING SCHOOL**—While on field training assignment with DGP Jim Donatelli in Mercer County, we checked many duck hunters. We were both amazed that every other hunter we checked was from my home area of Armstrong County, and that I knew most of them. No matter where you hunt in Pennsylvania, it seems you run into someone you know. —Trainee James W. Egley.



## Getting There

**BLAIR COUNTY**—The expression "You've come a long way baby," applies not only to many aspects of the women's movement, but also to their hunting success. Opening day of last buck season I found a lot of women who had taken deer before their husbands. "Hubby" might be a better teacher than a hunter. —DGP Donald D. Martin, Hollidaysburg.

## Stuck

**YORK COUNTY**—In gobbler season, Dashed, a friend of mine, and I located a bird at dusk. The following morning found us in the woods by 4 o'clock. An hour's hike got us to the turkey's area. Dashed found a place to sit, and I moved about 50 yards away and lay down. The woods were abnormally dry and noisy, and during the next half-hour I couldn't understand why he hadn't started calling. Finally, the calling began, and for 20 minutes we had two birds responding. Suddenly, Dashed stood up and walked down to me, pulling at the seat of his pants the whole time. I asked what his problem was. "I thought I sat on an ant hill," he said, "only to find out later it was a dead porcupine."—DGP G. J. Martin, Spring Grove.



## Congested

At the end of May it took me two hours to drive a six-mile stretch of road on a local Game Lands, because of traffic jams. One "traffic jam" was caused by a hen turkey with about a dozen poults. Three grouse hens, all with good size broods, constituted others. Numerous woodchucks that wanted to attack my pickup truck, and so many deer that I didn't bother to count, made up the rest.—LMO Ken Zinn, Jersey Shore.

## Plenty to Do

**TRAINING SCHOOL**—While on my first field assignment in Allegheny County, a caller remarked, "There's probably not a lot for you guys to do in an urban area such as this." Nothing to do? We took care of a deer the dogs had run over the cliff, a deer in a pond, and two deer trapped in a creek channel. We either found or didn't find 14 roadkilled deer reported that day. The phone log shows we received only 86 calls that day (not bad for a weekday), and so far the nuisance turkey hasn't been back. Nuisance turkey? That's another story.—Trainee Robert W. Criswell.

## A Fan

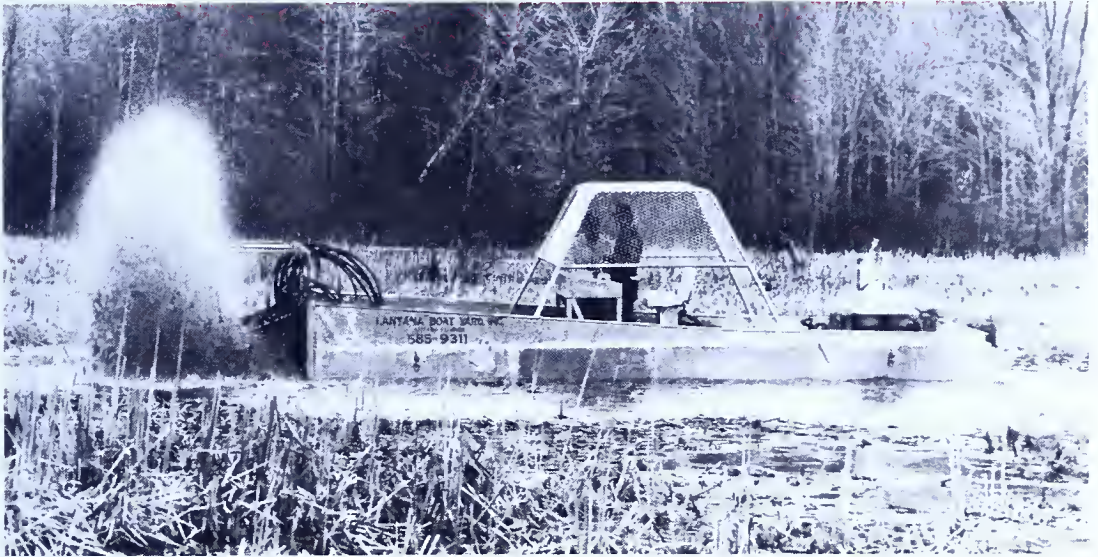
While traveling on Route 422 near Womelsdorf I came upon a three-vehicle accident. Neither the State Police nor emergency crews had arrived, so I stopped and rendered assistance, checking for serious injuries, taking precautionary measures against fires, and organizing traffic routing. During the confusion, an unidentified woman said she would like to talk to me later. After the emergency crews arrived and took over, she came over to me again and said she just wanted to extend congratulations to the Pennsylvania Game Commission on their programs, especially with the turkey and deer.—FAS Perry A. Hilbert, Reading.

## Dead Eye

**BRADFORD COUNTY**—On one of my radio programs I stated that a skunk can spray accurately up to 12 feet. I told the audience the three warnings a skunk usually gives before spraying are: 1) shaking its head, 2) drumming its front feet, and 3) raising its tail over its back and turning its rump toward you. Several weeks later a caller told me I was wrong. He had encountered a skunk and made sure he stayed 15 feet away, but the skunk still hit him. I told him it was just his luck to run into an expert shot.—DGP William A. Bower, Troy.



# MARSH Funds Help Finance Weed Cutter



**T**HE GAME Commission has received almost \$52,000 in matching funds from Ducks Unlimited to help underwrite the cost of a new aquatic weed and channel cutting machine now being used to enhance waterfowl habitat in vegetation-choked swamps and marshes in northwestern Pennsylvania.

An historic event for both Ducks Unlimited and the Commission, the \$51,631 in matching funds are the first under DU's new MARSH Program. MARSH (Matching Aid to Restore States Habitat) provides both outright grants or matching funds for acquisition,

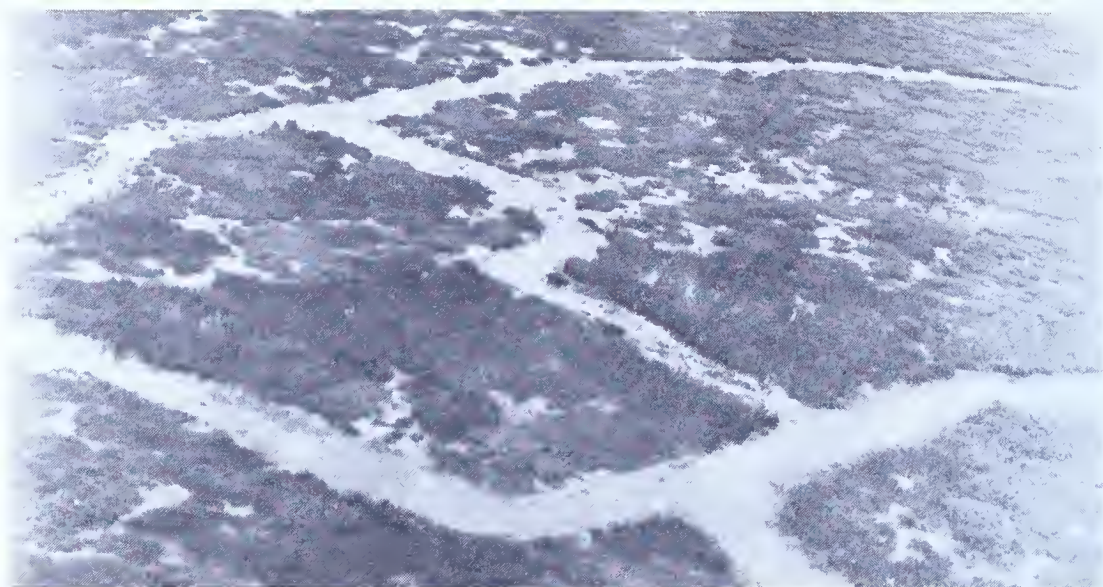
development and enhancement of waterfowl habitat.

During ceremonies at the Pymatuning Wildlife Management Area, PGC Executive Director Peter S. Duncan expressed high praise for the DU MARSH program and the aquatic weed cutting machine.

"Anyone with any reservations about this new equipment should spend a few minutes over Erie, Crawford and Mercer counties," said Duncan. "From the air—one of the best ways to assess the machine's effectiveness—we can see hundreds of acres of previously inaccessible swamps and marshes opened by the blades of this powerful new equipment. The cutter restores waterfowl habitat at rates heretofore only dreamed about. It's a great asset to waterfowl, and a great addition to our fleet of habitat development equipment."

Duncan, along with Jake Sitlinger, Director of the Commission's Bureau of Land Management, noted that the aquatic weed and channel cutter, designed and manufactured in Florida, can treat and enhance waterfowl habitat hundreds of times faster than man





**AERIAL PHOTO DEMONSTRATES** how new weed cutter can penetrate and treat areas only marginally accessible to crews with hand tools.

alone. And in the future, the Commission will become more and more dependent upon machines and mechanical technology to perform tasks now done by hand.

"As technology advances, so will the Commission," said Sitlinger. "Each year we are required to manage and improve habitat on State Game Lands. While this continues to be a monumental task, we're confident we can stay abreast of our growing needs with mechanical technology such as the aquatic weed and channel cutter.

"While this machine is designed to work on water," said Sitlinger, "we are in the process of purchasing similar

types of equipment that work on land—equipment that can clear brush and create new forest habitat at the rate of hundreds of acres a week."

Total cost of the new aquatic weed and channel cutter was more than \$141,000.

According to Sitlinger, during fiscal 1984-85, expenditures on wetland acquisition and waterfowl management projects in Pennsylvania exceeded \$775,000. Four new wetland tracts were acquired with monies generated through the sale of Pennsylvania voluntary waterfowl management stamps, and royalties from fine art prints.

## *Books in Brief . . .*

(Order from publisher, not from Game Commission)

**Badge in the Wilderness**, by David H. Swendsen, Stackpole Books, Cameron & Kelker Sts., Harrisburg, PA 17105, 192 pp., \$20.47, delivered. Follow the author's 30-year career as a wildlife law enforcement officer, from the first arrest he made as a conservation warden in Wisconsin through his years as an agent for the U.S. Fish and Wildlife Service, as he vividly describes the excitement, frustrations, dedication and sacrifices characterizing this popular but largely misunderstood profession.

**Making Game: An Essay on Woodcock**, by Guy de la Valdene, Willow Creek Press, P.O. Box 2266, Oshkosh, WI 54903, 202 pp., \$20. An unusually entertaining blend of scientific information, folklore, and personal anecdotes. It gives the reader a thorough understanding of the enigmatic but nonetheless popular timberdoodle. Travel with the author as he follows the bird's migrations while philosophically searching for reasons why he pursues them at every opportunity with a gun.



# *Eight Bears Over 500 Pounds Taken*

**A**CCORDING to preliminary reports, eight bears with live weights over 500 pounds were taken during the two-day season in November. Ordinarily, a bear's field dressed weight is 15 percent less than the live weight. As an example, a bear with a field dressed weight of 425 pounds is estimated to have a live weight of at least 500 pounds.

One huge bear was not field dressed until after it was taken to a bear check station. The bruin, taken by Gary A. Hazen of the Stroudsburg area, tipped the scales at 581 pounds. Harvested in Pike County, it weighed 512 pounds dressed.

An even larger bear, taken in Clearfield County by Christopher R. Kitko, Houtzdale, weighed 520 pounds dressed. Live weight was estimated at over 600 pounds.

Other bears with estimated live weights over 500 pounds were taken by Cliff Swanson, Albrightsville, 487 pounds, taken in Carbon County; Rick B. Kintner, Tunkhannock, 475 pounds, Wyoming County; Keith T. Coon, Greensburg, 464 pounds, Indiana County; William C. Fisher, Huntingdon, 435 pounds, Huntingdon County; Carroll G. Geckman, Bellefonte, 434 pounds, Centre County; and David C. Worgul, Coalport, 429 pounds, Clearfield County.

Bears with live weights over 470 pounds were bagged by Michael Sidorick, Madera, 423 pounds, in Clearfield County; Rodney E. Walker, Pleasant Gap, 422 pounds, Centre County; Joseph S. Forish, McAdoo, 418 pounds, Schuylkill County; Robert J. Ryan, Mahanoy City, 412 pounds, Lycoming County; Robert A. Brant, Wellsboro, 405 pounds, Tioga County; Brian J. Schlappich, Bernville, 405 pounds, Tioga County; Michael L.

Blow, Wyalusing, 403 pounds, Bradford County; and Russell Frank, Lehighton, 401 pounds, Carbon County.

Preliminary analysis of bear data tends to show the resource was underharvested in 1985. Prior to the season, the Game Commission indicated a harvest of 1000 bears might be sufficient to maintain a stable population, but it is now believed that figure may be too small.

At least 20 to 25 percent of the bears should be taken to keep the population from increasing, but in 1985 only about 14 percent of the bears were harvested. This should result in an increase in bear numbers in 1986. Further, less than 5 percent of the marked pregnant females were taken during the season. This should also result in increased reproduction next year.

This year, hunters took 923 bears the first day, a good harvest, but heavy rain the second day of the season reduced the kill to only 106. The 1029 total compares with 1547 in 1984 and 1529 two years ago.

**GARY A. HAZEN, Stroudsburg area, got one of the biggest bears taken in 1985, this 581-pounder from Pike County.**



# Hunters Health Screen

The fourth annual Hunters Health Screen, provided to the public by St. Joseph's Hospital, was conducted in Carbondale before bear season last November. A total of 114 area hunters participated.

The main purpose of the program is to discover potential problems before sportsmen undergo the stress of hunting, and refer them to physicians if necessary. Testing included blood pressure, height and weight, nutritional guidance, electrocardiograms, vision, and color blindness.

Jan Corbett, a registered nurse on duty, stated, "If we are able to identify just one potential problem for an individual, we feel that the program has been beneficial." Jeanie Deecki, RN, noted that several individuals were advised to see their physicians before the last big game season.

New to the most recent program was a presentation on the Pennsylvania game laws given by Deputy Dave Jones. Literature from the Game Commission and health pamphlets from St. Joseph's Hospital also were distributed.

St. Joseph's is the only hospital in the area to provide this free service to hunters. The Educational Services Department coordinated the program.



**FRANCIS FULLER, SR.,** of Philadelphia, left, with the fine 8-point he took in Tioga County.

**THESE BELLWOOD** hunters, below, had a good season in 1984. Tom McCann, left, and Jim Evans, right, both connected on 8-pointers in Blair County, while Rick Pfeffer got his 12-point in Bedford County.





# young artists page

**German Shorthair  
Matthew Skulteti  
Bethlehem, PA  
Notre Dame  
Elementary School  
Grade 7**



**English Setters  
Howard Brown  
Sayre, PA  
Athens Area High School  
Grade 12**



## Game Commission Publications & Items

Quantity	Books	Price
_____	BIRDS OF PENNSYLVANIA, by James & Lillian Wakeley . . . . .	\$ 10.00
_____	THE WINGLESS CROW, by Charles Fergus . . . . .	\$ 10.00
_____	MAMMALS OF PENNSYLVANIA, by J. Kenneth Douth, et al . . . . .	\$ 4.00
_____	GONE FOR THE DAY, by Ned Smith . . . . .	\$ 4.00
_____	PENNSYLVANIA WILD GAME COOKBOOK . . . . .	\$ 4.00
_____	DUCKS AT A DISTANCE . . . . .	\$ 2.00
_____	WOODLANDS AND WILDLIFE . . . . .	\$ 2.00
_____	PENNSYLVANIA TRAPPING MANUAL, by Paul Failor . . . . .	\$ 3.00

### Working Together for Wildlife Collectibles

_____	1985 BOBCAT PATCH . . . . .	\$ 3.00
_____	1985 BOBCAT DECAL . . . . .	\$ 1.00
_____	1984 BLUEBIRD PATCH . . . . .	\$ 3.00
_____	1984 BLUEBIRD DECAL . . . . .	\$ 1.00
_____	1983 OTTER DECAL . . . . .	\$ 1.00
_____	1982 OSPREY DECAL . . . . .	\$ 1.00
_____	1981 FLYING SQUIRREL PATCH (Limited) . . . . .	\$ 3.00
_____	1981 FLYING SQUIRREL DECAL . . . . .	\$ 1.00

### Wildlife Management Areas

_____	PYMATUNING WATERFOWL PATCH . . . . .	\$ 3.00
_____	PYMATUNING WATERFOWL DECAL . . . . .	\$ 1.00
_____	MIDDLE CREEK WATERFOWL PATCH . . . . .	\$ 3.00
_____	MIDDLE CREEK WATERFOWL DECAL . . . . .	\$ 1.00

### Pennsylvania Bird and Mammal Charts

_____	Set 1 (4 charts) 20" x 30" . . . . .	\$ 4.00
_____	Set 2 (4 charts) 20" x 30" . . . . .	\$ 4.00
_____	Set 3 (8 charts) 11" x 14" . . . . .	\$ 4.00
_____	GAME NEWS Cover Prints (4 by Ned Smith) 11" x 14" . . . . .	\$ 4.00
_____	State Symbols Chart 20" x 30" (Deer, Grouse, Hemlock, Laurel) . . . . .	\$ 2.00

### SPORT Items

_____	Bronze SPORT Tie-Tac/Lapel Pin . . . . .	\$ 3.50
_____	SPORT License Plate . . . . .	\$ 4.00
_____	SPORT Patch . . . . .	\$ 1.00

### GAME NEWS

_____	GAME NEWS Binder (Holds 12 Issues) . . . . .	\$ 5.00
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### Waterfowl Management Stamps (Voluntary)

_____	1985 Waterfowl Management Duck Stamp . . . . .	\$ 5.50
_____	1984 Waterfowl Management Duck Stamp . . . . .	\$ 5.50

Mail orders along with remittance to Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567. Checks should be made payable to Pennsylvania Game Commission.

DO NOT SEND CASH

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_



# No Easy Route Wanted

**A**HUNTER is a person who doesn't take the easy way. This is true practically by definition. After all, do you know anyone else who will routinely freeze in a predawn duck blind, get soaked in a downpour just in hopes of seeing a deer, or trudge through snowdrifts up to his knees on the chance of booting out a rabbit? There's a bit of conquest in every hunt—not over the animal, of course, but over the challenges of the sport that we face each time we go afield. And we don't care to take the easy route.

A lot of non-hunters don't understand that. Around the holidays each year, at the inevitable gatherings of family and friends, some well-meaning person will say to me, "So, I hear you're a hunter. You ought to come over to my backyard. You could shoot all the squirrels you want." I refuse the offer politely and usually change the subject before I start to bristle. As if putting a bullet in a squirrel was the whole object of hunting! That person wouldn't understand why potting a squirrel over his carport fails to interest me, and the middle of a holiday party isn't the place to explain what puts the sport in sport hunting.

Nowhere is it truer that anything worthwhile must be worked for, than in the making of a successful hunt. Non-hunters don't understand that, for gunners, a bird that comes too easily to hand isn't worth nearly as much as one left in the bush. It's only when we can show the scrapes of going

through that bush, and pull a good shot on the bird busting out of it, that we feel we've got a trophy and not just the makings of a meal.

This past year I was finally able to make the move that has carried me from growing up just outside of New York City to a country home in Pennsylvania. Now I can pick up my gun or bow, walk out my back door and start hunting. Yet, last fall, I did very little hunting there. It seemed too easy. I felt I had to drive half an hour every morning to wilder woods and hike a mile or more before I could satisfy myself that I was on a "real" hunt. I secretly thought this a silly attitude, until a friend said almost the same thing to me before last archery season. "I'm seeing two nice racked bucks out my window every morning. But you know me," he grinned, "I've got to drive at least twenty minutes from home or I don't feel I'm hunting."

## Surprising Thing

The surprising thing is this urge to get away to the woods, to go into remote areas, hike farther and hunt harder, brave the weather and stick it out until the final gun, doesn't necessarily result in more game taken. It doesn't matter to a buck how many miles are on your boots or how thoroughly you scouted him. He doesn't give you the shot because you deserve it. He doesn't know or care . . . but you do.

There are many tales about the guy who slept late, got into the woods at noon, walked 50 yards from his car and shot a bragging-size buck standing a stone's throw away at 12:05. But can this hunter really brag? He has every right to feel fortunate at having bagged such a magnificent animal, and might get a lot of fun out of talking about the time he got the "easy deer," as an oddity that rarely happens. Yet every time he looks at that mounted head, he's got to feel a bit

## Another View...

by Linda Steiner



**DESPITE** ice glazing the branches, snow underfoot and falling rain, a hunter and his dog are out after snowshoe hares in a Pocono swamp.

cheated. It can't give him the same satisfaction as a hunter gets from a set of spikes tacked to the wall of his garage—if that spike was taken on a complete hunt.

He remembers that day in every detail. He started into the woods before dawn and hiked up the ridge to the edge of a thicket that he figured the deer would run to once the shooting started. An icy, all-day rain was seeping into his collar, but he'd just promised himself he'd stay just one more hour when he spotted the flick of an ear in the laurel, then the glint of a bone-white antler. It was a tough shot, the deer was nervous, and he recalled

how he picked an opening through the leaves and settled the crosshairs just so, not breathing, and squeezed. . . .

Hunters have something that most nature-lovers I've met haven't got—respect for a wild animal in its own right, in its ability to thrive in the foreign land that lies just beyond our neatly mowed yards. A hunter thinks too much of a deer's dignity to label it as cute. Perhaps that's why we feel obligated to hunt them in a manner that shows this regard in its difficulty, that makes the pursuit of the animal sportsmanlike. We may use a high-power rifle and a magnifying sight, but we cherish the shots that were hardest to make. We take up bowhunting and muzzleloaders; some of us go back to the longbow, the handgun or the single-shot rifle.

Any outdoor magazines or catalogs that come to the house are sure to be filled with advertisements for new sports equipment and gadgets that promise to "improve the hunter's chances for success" and help him "get more game." While some of these contraptions could have been made by P.T. Barnum, other products do seem able to make it easier for hunters to fill their game bags. But are they giving us what we really want out of a hunt? Is a quicker way to venison potroast what we're looking for? I think not. After all, a hunter is the original do-it-yourselfer, and he likes to have a few "hammered thumbs" to feel he's done a job he can be proud of.

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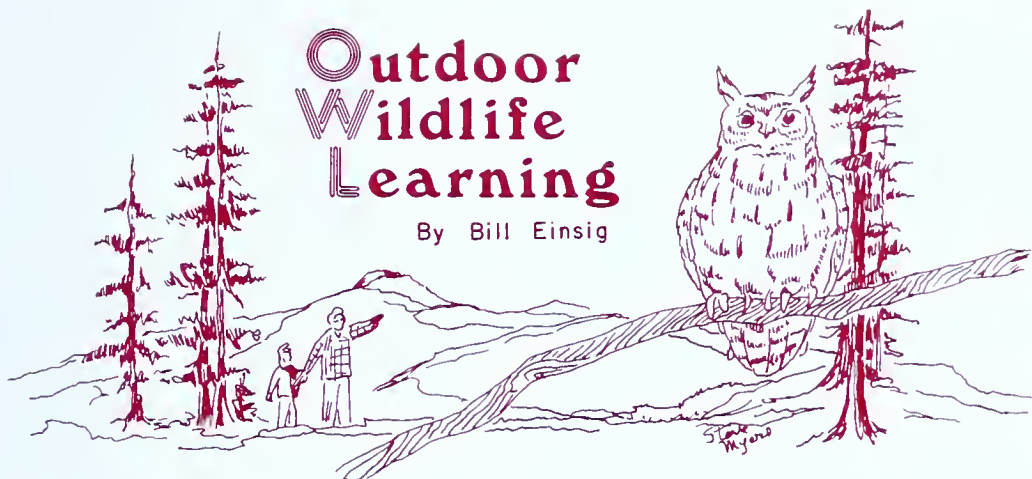
## ATTENTION WOODLAND OWNERS

The Pennsylvania Forestry Association will hold a special Forest Landowner's Conference on Saturday, March 1, 9 a.m. to 4 p.m. All interested persons are welcome. Location is the Lamar Holiday Inn, just off Exit 25 of I-80 in Clinton County. The program will feature sessions on basic forest management, timber sales, improving woodlands for wildlife, and forestry assistance programs. A buffet luncheon will be served. Pre-registration required. For a complete agenda and registration forms, contact the PFA office at 410 East Main Street, Mechanicsburg, PA 17055. Or call Ken Olenderski at 717-766-5371.



# Outdoor Wildlife Learning

By Bill Einsig



## The Forest Classroom

**I**F I COULD design my ideal school, I'd make sure it had a forest nearby. It wouldn't have to be a big forest but it would need to be a good mixture of native trees with all the other shrubs, flowers and critters that make a forest a forest.

It would also have to boast a small stream and pond so that kids could get all soggy as they took water samples and poked under rocks. A beaver pond would be nice, but I'd settle for a small farm pond just about a quarter-acre in size.

There are, of course, schools with those kinds of teaching tools close at hand. Other schools not so fortunate have to bus their classes to the woods on field trips that last from a few hours to an entire week. In the real world, that's the best most of us can do.

As a matter of fact, getting to a forest is not usually as much of a problem as knowing what to do once you're there. It's frustrating to stand in the midst of some natural area wishing you could share the experience with your whole class but, at the same time, not being sure of exactly what you would do with that many kids!

I've made a list of nearly a dozen ideas that have worked well for me with students of various ages. You can develop each idea to fit your particular need. If you have a family and enjoy working with them in the outdoors, most of these ideas could make good family activities to add interest to a walk in the woods. Most of all, have fun with them.

### For Nature Study

**Nature Walk** It would be difficult to design a simpler, but still effective, lesson than the basic nature walk. Turn your walk into an adventure by looking carefully. How many kinds of lichens can you find? How does the bark of trees differ on various species? Find a salamander or look for types of seeds. Look for signs of changing seasons, such as colored leaves, opening buds and thawing earth.

Every trip brings something new, some new question that cannot be completely answered at the time. But don't let that stop you from exploring. That's really the exciting part.

**Leaf Match** Ask your group to look for different kinds of leaves. How are they different? Compare their shapes, colors, and textures. Are some stiff or hairy while others are soft or smooth? Do the leaves have smooth edges or are they jagged like a saw blade?

Assemble one or more large piles of fallen leaves and group your kids into relay teams. One member from each team should run to a pile and search for a leaf that matches the leaf you hold in your hand.

**Collections** Leaf collections are always popular but don't overlook other specimens. How many kinds of acorns can you find? Acorns vary widely in size and shape, and make good collections. Discuss why they seem to be more abundant under certain oak trees. Evergreen cones also offer great variety. Most of us call them all "pine" cones, even though they grow on spruce, fir and hemlock trees.

Collections can be dangerous. Be careful how much you allow students to collect on their own, and consider making a gen-

eral class collection rather than individual collections. Flowers and animals are not good subjects for collections.

**Community Study** Look at the forest as a community of living things. Each species plays a role in the total forest system. What plants in your forest produce food? What animals are plant eaters in these woods? Is there any evidence of carnivores? What happens to the remains of plants and animals that die? Can you find evidence of that process going on around you? Do all plants in your forest get the same amount of sunlight? Is there a water supply for animals?

## For Outdoor Education

**Quiet Sit** It's amazing how much we miss being too busy with ourselves and others to notice the nature that surrounds us. Distribute your class throughout an area where they cannot talk to each other. Even better, place them so they cannot see each other. Tell them to sit quietly and concentrate on the happenings around them. After 15 or 20 minutes reassemble and share experiences. Amazing stories happen in that short period of time, forming the raw material for creative writing and works of art.

**Soft Scavenger Hunt** Have a scavenger hunt that focuses on natural things but doesn't require students to actually collect them. Look through the forest for rectangles, squares, circles and triangles. Look for all the colors of the spectrum. Find things that are rough, smooth, soft, hairy and puffy. In ten minutes, see who can find and collect the most litter.

**How Much Firewood?** Measure the diameters of several large trees in your area. Use the diameters to estimate the amount of firewood in those trees. How much money would that firewood be worth? How much could you earn by cutting and selling a whole acre of this forest for firewood? What effect would that have on the forest and the animals that live there?

Diameter	Cords
8"	.11
10	.19
12	.31
14	.46
16	.66
18	.90
20	1.20

**Bark Rubbings** As an art lesson, fasten paper to the trunk of a tree and use charcoal, chalk or crayons to rub over the paper to reveal the texture and pattern in the bark. How does a beech rubbing compare to that of a hackberry? Could you identify trees using bark rubbings?

## For Environmental Education

**Forest Issues** Discuss issues that come from the interaction of humans and forests. Clearcutting—wasteful or helpful? Management—for nature or for man? Wilderness and development—where do we draw the line?

**Current Forest Problems** Describe one or more current problems involving forests and ask students how they feel about them. Later, encourage library research for reports and essays on these problems. Always try to present a balanced perspective to each problem so students can understand the positions of opposing groups. Is acid rain affecting our forests? Should we spray forests to protect them from pests like the gypsy moth? How can we protect the forests from overuse by visitors?

**Forest History** Describe the kind of timber cutting that took place in Pennsylvania forests during the 19th century. What effect did it have on the land at that time? How did that era affect the modern forest? How is modern forestry different from that of a hundred years ago? As the forest grew back, what changes occurred in the animal populations? Do a bit of research yourself on this topic and you'll see that what we have today is the result of what was done more than a century ago.

## Conserve 86

Everybody with an interest in the outdoors will enjoy *Conserve 86*, an outstanding calendar published by the Western Pennsylvania Conservancy. As it has in the past seven years, the 1986 calendar features reproductions of the stunning wildflower paintings by Andrey Avinoff. Daily items, including natural history facts and timely information on where to go and what to do in the outdoors, make this calendar especially interesting and useful. Calendars are \$6.36 each, delivered, and can be ordered from the Western Pennsylvania Conservancy, 316 Fourth Avenue, Pittsburgh, PA 15222.



**F**EBRUARY is a transitional month for a Pennsylvania Game Protector. Suddenly, the phone doesn't ring as much as it used to, hunters aren't out probing the fields and forests for game, the number of highway killed deer drops off, and you even get to spend an occasional evening at home with your family.

In Chester County, I find my duties slowly shifting to meet the demands of the season. Although I still have a few cases to conclude and an occasional call comes in regarding a law enforcement problem, a good portion of my time is centered around public relations.

At the same time, wildlife is experiencing a change which is much more critical. Gone are the warm fall days when food was abundant and cover was just a short bound or flight away. The birds and animals that are able to endure the snow and cold of February are the ones which will ensure the survival of their species come spring.

As individuals concerned with the welfare of our state's wild creatures, the most important thing we can do to help them survive is to promote the protection and production of good habitat. Without it, wildlife can't survive.

*February 1*—I started the new month by acting as the prosecutor in a hearing in front of District Justice Eugene DiFilippo of Kennett Square. The case involved an individual I'd cited for killing two deer in one license year. The magistrate listened to testimony from witnesses for the commonwealth as well as witnesses who spoke in behalf of the defendant. After carefully considering all aspects of the case, the defendant was found guilty. As is the situation in all court cases, the defendant has the right to appeal the decision.

In the evening, I met Deputy Pete Aiken. He had received information that our defendant from New Castle, Delaware, would be in Pennsylvania visiting relatives tonight. It was our intention to serve the arrest warrant we had for him. We patrolled the Landenberg area during the evening. When our man failed to show up by 11 p.m., we called it a night.

*February 4*—Spent the day in the office completing monthly reports, returning phone calls, and clearing my desk of the mountain of paperwork which had accumulated over the last few days.



**By Keith Sanford**

**District Game Protector  
Chester County**

*February 5*—In the morning, traveled to our regional office in Reading. I dropped off my reports and spent a few minutes in conference with Law Enforcement Supervisor Lowell Bittner. I don't often get to the office, but when I do I make it a point to spend some time discussing those things which are currently going on in the district. Oftentimes, informal discussions such as these can provide solutions to major problems.

I spent the remainder of the day patrolling in Pennsbury, Kennett, Franklin, and London Britain townships.

*February 6*—Public relations is a large part of a game protector's job. A well informed public is less likely to break the law and tends to have a better appreciation for what we, as wildlife managers, are attempting to do.

Part of my PR program in southern Chester County includes a bi-weekly outdoor column in the local newspaper. Through this medium, I try to keep the hunting and trapping public up to date on the latest changes in the Game Law, seasons and bag limits, and any other newsworthy items which impact on the county's sportsmen. This morning, I spent the first hours of the day writing a column which will appear in Friday's paper.

In the afternoon, I traveled to West Chester and Landenberg, where I started

conducting character investigations on two individuals who have expressed an interest in becoming deputy game protectors.

*February 7*—Stopped off at the office of District Justice C. Burtis Coxe this morning to check on the status of a pair of citations I had issued. One, which involved the trapping of muskrats in closed season, had been paid. The other, a deer poaching case from a year ago, was still open. The secretary informed me that an arrest warrant had been issued and given to a constable for service. The individual involved in the illegal killing had pleaded guilty to the charge but failed to make the appropriate time payments on his fine.

*February 8*—Spent the day completing the character investigations on my two new deputy applicants. The days are long gone when anyone who was interested in becoming a deputy was just issued a badge and a Game Law book and told to go out and enforce the law. A deputy game protector in the 1980s must be of sound moral character, physically and mentally fit to meet the demands of the job, knowledgeable of game laws and wildlife management practices, and willing to spend long and oftentimes irregular hours enforcing the state's wildlife laws for little or no pay. If an applicant can't meet these and other requirements, we don't want him on the force.

*February 11*—Received a call first thing in the morning from an individual in West Nottingham Township. During the pre-dawn hours he had seen a vehicle driving slowly past his home, working a spotlight on an adjacent field. The truck stopped, a shot rang out, and then the vehicle sped off down the road. I met the caller later in the morning and we searched the area in an attempt to recover a fired cartridge case, a dead deer, or any other evidence of the violation. We found nothing, and it appeared, at least in this instance, that the target had escaped unscathed.

In the evening, met with Land Management Officer Rich Skubish. Together, we presented a program on wildlife management and farming practices to the Evergreen Garden Club in West Grove.

*February 12*—Met Lancaster County Game Protector Ed Gosnell this morning. Together, we drove to Harrisburg, where

we had been assigned to work the Game Commission's booth at the Sport Show. Ed and I look forward to working the display every year as it is a welcome change of pace from our normal duties. As in past shows, we had numerous inquiries on game laws and Commission programs. The biggest issue of the day was the proposed increase in hunting license fees. Although a few individuals opposed the license hike, most of those I spoke with recognized how vital these funds are to the Commission's programs and felt it was warranted.

*February 13*—I was in Harrisburg again today, this time for a meeting at the Game Commission's central office on Derry Street. Also in attendance were Executive Director Peter Duncan, Deputy Director Harvey Roberts, Regional Director C. J. Williams, Chester County Game Protector Lou Fortman, and representatives from several fox hunting clubs in Chester County.

As is the case with other sportsmen in southeastern Pennsylvania, the fox hunter's pastime is being threatened by urbanization. Open areas which could once accommodate the horse and hound hunts are no longer able to do so, and landowner/hunter conflicts are becoming more frequent.

The purpose of our meeting was to try to find some solutions to the problems which are affecting not only the fox hunters, but also the Game Commission and the nonhunting public as well.

After our round table discussion, we all left with a greater respect and understanding of each other's problems and with a commitment to mutually resolve them.

*February 15*—In wildlife management there are two ways of stocking game, the put-and-take and the trap-and-transfer methods. Put-and-take stocking, such as the Commission's fall pheasant release program, is simply a way of placing more game in front of the hunter's gun. The birds are intended to provide additional hunting opportunity, not establish new populations.

The trap-and-transfer method takes wild game from one area and places it in a suitable habitat elsewhere. The intention of the release is to establish a wild, self-sustaining population of a particular species in an area where it isn't currently found.



This morning, I traveled to our Reading office and picked up three "jake" wild turkeys which had been cannon-netted in Somerset County by Game Protector Dan Jenkins. Commission Biologist Arnie Hayden felt that southern Chester County had habitat in several locations that could support small populations of these big birds. Today's release was the first of several such stockings that I'll make over the next month.

*February 26*—Started off the day by delivering hunter education materials to one of my volunteer instructors at the Avon-grove Middle School. Most of the hunter ed courses in my district are presented by local sportsmen's clubs. A few, however, are offered during club periods in two of the local schools.

From West Grove, I headed north to West Chester, where I filed a citation with District Justice Crane. In the evening, I attended the monthly meeting of the Southern Chester County Sportsmen's and Farmers' Association in London Grove.

*February 27*—In the morning, I gave a program on Chester County wildlife to the first grade students at the Mary D. Lange Elementary School in Kennett Square. When I do presentations such as this, I like to make the students aware of the large variety of wildlife that we have living right in our own backyards. Too often we

go about our daily activities without ever seeing and appreciating the beauty of the natural world which is at our fingertips. I finished the day by meeting with two of the special permit holders in my district, a fur dealer and a taxidermist, both situated in London Grove.

*February 28*—I started the last day of the month by removing a raccoon from a leg hold trap in West Chester. The animal had been raiding neighborhood garbage cans. Apparently, the person who set the trap thought this was the way to solve the problem. A concerned citizen saw the animal dragging the trap through town and gave me a call. After catching the coon with my snare pole, I was able to release it unharmed. Fortunately, the incident didn't result in a blackeye for responsible sport trappers.

From February through the middle of May, deputy and district game protectors remove half of the lower jaw and check for fetuses in all highway-killed female white-tails they come into contact with. Data compiled from this procedure is incorporated into each county's overall deer management plan.

After leaving West Chester, I picked up a highway-killed doe in the Chadds Ford area of Pennsbury Township and retrieved the required biological data from it for our game management staff.

I finished the day, and month, by starting my monthly reports.

## *Books in Brief . . .*

(Order from publisher, not from Game Commission)

**Unrepentant Sinner**, the autobiography of Colonel Charles Askins, Tejano Publications, San Antonio, Texas, and Paladin Press, P.O. Box 1307, Boulder, Colo. 80306, 322 pp., \$17.95. Gunwriters are an unusual ilk who hold a strange position in the minds of countless readers. They're admired, envied, despised—sometimes all at the same time. Rarely was anyone neutral about Elmer Keith, Jack O'Connor or Warren Page. They're even less so about Colonel Askins. Son of the late famed gunwriter Major Charles Askins, the flamboyant colonel grew up in the Southwest, became a forest ranger, Border Patrolman, a genuine man-killing gunfighter, several times national handgun champion, paratrooper, combat veteran of WWII, Vietnam and elsewhere, and one of the world's top hunters with scores of African safaris and upwards of a thousand big game critters to his credit. For decades he's been cranking out his gun/hunting prose for assorted magazines and he's done six or eight other books, all in a style that can only be described as inimitable. It's never hard to tell what or whom Charley likes or dislikes; he just lays it out. (Editors are high among the dislikes—which is slightly unfortunate, as some routine copy editing would have helped here. No big matter.) As a book, this one's a grabber. But it's not meant for children or the squeamish.

THE FIRST TIME I went cross-country skiing, I realized there was no practical way to stop. I mean, if you were skimming down a trail through the woods and the trail elbowed and you couldn't make the turn, you were sunk. You could, according to my teacher, drop into a squatting position and drag your ski poles like anchors; that *might* stop you. Or, you could simply sit back on the tails of your skis and bump and skid to a stop. In other words, you could crash on your own initiative instead of crashing because you ran out of trail.

I crashed a number of times that day, rarely on my own initiative. Fortunately, I was not able to remain upright for long periods, so I never built up enough speed to hurt myself. And despite all the crashing, I had a good time. There was something satisfying about the motion—a smooth, rhythmic striding that propelled me in a hissing glide across the snow—that made me want more. I went out and bought a pair of skis.

Of course, I didn't buy just skis. (You wouldn't buy just a gun if you wanted to go deer hunting, would you?) I bought skis and metal bindings and Italian-made shoes and bamboo poles and a can of tar (to seal and protect the bottoms of the skis), little foil-wrapped cylinders of wax (to slick up the tar-coated bottoms), a cork doo-dad for spreading the wax, a metal scraper for removing it, and canvas straps for clamping the skis together to make them easier to carry. Plus a belt pack for all of the paraphernalia.

### Fastest-Growing Winter Sport

Cross-country skiing is America's fastest-growing winter sport. According to an article I read, in 1970 there were about a million enthusiasts; in 1984, six million.

The typical cross-country skier of today wears an outfit of slick, shiny, color-coordinated nylon. He or she has state-of-the-art waxless skis with which to traverse the snow of golf



courses, fitness trails, and cross-country ski resorts. The 1970 skier, on the other hand, was more likely to be attired in dungarees and a wool shirt, and to have wooden skis that needed to be waxed. I'm a throwback; I got my waxable skis—and all their attendant equipment—in 1974.

My skis were made in Norway, where cross-country skiing is the national pastime, like baseball over here. A cross-country, or Nordic, ski is narrower, lighter, and longer than a downhill ski. (My cross-countrys are about a foot longer than I am tall.) A ski is cambered: Lay it flat on the floor and only its tail and tip will touch; the middle part will be up in the air about an inch. Gliding, you travel mainly on the ends of your skis, the few feet back from the tips and the few feet up from the tails. When you kick—when you push your weight straight down to propel yourself forward—the ski flattens so that its entire length is in contact with the snow. The whole ski, including the middle, grips.

To move forward, you kick off on one ski while pushing off with your opposite pole. As you shuffle along, you try to take advantage of whatever glide the skis will give you. Kick, glide; kick, glide. The whole process, believe it or not, comes naturally. When you do it right, it feels like a



cross between jogging and skating. When you do it wrong, you flounder around in the snow — or you crash.

I suppose I had better confront the confusing (at least to me) subject of waxing. People have written entire books on how to wax cross-country skis. Wax, of course, helps the skis glide across the snow.

You can approach waxing scientifically and use a host of different waxes for all of the varying conditions of temperature and snow type that you will encounter. (Waxes with different properties come in different colors — not standardized, unfortunately, from one company to the next.) You can mix waxes, laying down a “kicker strip” of soft wax on the part of the ski directly under your feet, while coating the rest of the ski with a harder wax to smooth your glide. The properties of ski wax allow you to put a softer wax on top of a harder one (the softer waxes are used in warmer weather), but not vice versa: This is when that little metal scraper I bought comes in handy.

It's possible to spend half of your skiing time taking off your skis and scraping the wax from their bottoms and rooting around in your belt pack and rubbing on a new type of wax and spreading it — while everybody else stands around getting cold and giving you dirty looks. (*You* don't get cold, as almost every phase of the waxing

operation necessitates scrubbing furiously at the bottoms of your skis.)

After trying to learn all the ins and outs of waxing, and failing, I settled down to a basic method that works most of the time. I use two types of wax: green, for temperatures under around 25 degrees; and blue, for temperatures above 25.

### Glide Better

My waxed skis glide a lot better than the new waxless ones. The big plus about waxless skis — my wife has a pair — is that you can just strap them on and start skiing. No need to spend fifteen minutes waxing; no need to stop and renew your wax after an hour or two of skiing. Waxless skis have plastic bottoms with an incised fish-scale pattern that is supposed to glide you forward on flat or descending ground, while gripping to let you climb gentle hills. They work, more or less, although you should hear my wife yelling when she gets halfway up a slope and starts skiing backwards.

Ever since I bought my skies, I have taken the sport at its name. I ski across country. This approach has had its rewards. Like the grouse that did not hear the soft hiss of approaching skis (or didn't know what the sound was), and who burst from under the snow so close I could see every feather. A regular barrage of owl hoots, breaking the





deep stillness of a sub-zero, moonlit night. Raccoons and foxes and mink and slack-jawed tree-bound porcupines that looked with surprise at what was probably the first human, judging from the unmarked snow, to have entered their world all winter.

Sometimes I ski through cornfields. Cornfields can be dangerous places; more than once I've hooked a ski under a cornstalk whose tip had bent over and then frozen solidly to the ground. The effect is the same as charging across the lawn and hooking your foot under a croquet wicket. Once I was skiing across a harvested corn patch that abutted a tract of woods; I topped a hill, shot down the other side, and found myself in the midst of wild turkeys. There must have been a dozen of them. I sat back and skidded to a stop as corncobs and feathers and snow exploded into the air.

I ski in the woods. Sometimes I follow the tracks of snowmobiles or deer, easier than breaking my own trail. To avoid all but the shiftiest trees, I have learned to execute a turn by spreading the tails of my skis, keeping the tips together, resting my weight on my heels, and leaning the way I want to go. Only occasionally do my skis' tips

cross and pitch me into the snow. Only occasionally must I sit back and crash. Once, moving quietly, I skied up behind a band of bedded deer. Kernels of snow lay on their backs, and their breath came out in little puffs. I watched for a while, then turned and slipped away.

I ski through briar patches. Not on purpose, but because briar patches are facts of life that often seem to lie between this piece of country and the next. When journeying through briars, I try at first to pay them no heed. The thorns tear at my ankles and grab at my sleeves. The canes leap up and quirt me across the face. Finally I bog down entirely. Then, depending on how thick the briars are and how many times I've been slapped, I yank my skis off and walk, or I take up one ski and employ it as a machete. I've traversed so many briar patches that my cross-country outfit—an old wool shirt, some retired work pants, a hunting cap—is terminally frazzled. In addition, my nice Italian boots have, over the years, been somewhat chewed by mice, and a thin sheen of ski wax seems to cover me all over.

Last winter, my cross-country jaunts ended in February about three-quarters of the way down a steep hill on a curving woods trail. I had already negotiated the hill once, and climbed back up for another go. I scooted my skis back and forth to get the bottoms clean and slick; then I pushed off and glided through the powder. I picked up speed. I thought I had the turn made, but I'd leaned too far: A rut grabbed my right ski and shot me up the bank and through the air and into the branches of a tree. I heard a loud *snap* and came down on the back of my neck. After cleaning the snow from behind my glasses, I discovered that the snap had been my ski and not my leg.

Which means I have to buy skis again.





SOME OF THE traveling trophies presented at the Annual Indoor Team Championship Tournament held in Harrisburg each April.

**Bow shooting for . . .**

## **Trophies of Another Kind**

**By Keith C. Schuyler**

**Photos from the Author**

**I**N HUNTING, we generally think of a trophy as evidence of our success as a hunter and a marksman. It can be anything from a field mouse to a moose—depending somewhat on the circumstances and whether we are hunting for a meal, a medal, or simply the satisfaction of a shot well made.

Dictionaries define a trophy loosely as any memorial or medal which accrues to a person from success in battle, in hunting, or an athletic event. Archers who fail in hunting have plenty of chances in athletic events—tournaments—throughout much of the year. Anyone who has toed the line for 90 to 120 shots from a bow, depending on whether it is a target or a

field tournament, knows he has participated in an athletic event. Drawing a 40- to 60-pound bow that many times, plus walking up to 80 yards between shots, is an athletic accomplishment whether or not the score earns a trophy or is simply a good workout.

Although outdoor tournaments are most visible, archers shoot anywhere there is space to set up a target at 20 yards or more. Many communities now have indoor ranges, either commercially operated or owned by archery clubs. They are Meccas for archers from a wide area during the winter. The more elaborate have air conditioning for year round shooting.

For indoor shooters, the big tournament is Pennsylvania State Archery Association's annual two-day meet at the Farm Show Building in Harrisburg. It is traditionally held in April as at one time it was staged concurrently with the National Archery Association's country-wide event held that month. Those who have sharpened their abilities at local indoor tournaments and leagues come here to compete with the best in Pennsylvania. Actually this is a combination of tournaments, for there are classes for all ages and every type of shooting. Further, individual scores are shot the first day to determine the state winner. On the second day, although individual scores are still recognized, the top four in each class determine the state team winner.

### No Deterrent

Lack of an indoor range for practice is no deterrent to those who have shot well on outdoor ranges when weather permitted. In the nearly motionless air of the cavernous Farm Show Building, arrows are unaffected by weather, and most archers shoot their best.

Photos here were taken at the eighth annual Individual Championship Tournament and the twenty-fourth

Annual Team Championship Tournament held last April. This year's double billing is scheduled for April 5 and 6, and reservations already have been made for April 4 and 5 in 1987.

Success of the annual events is evidenced by the growing number of Pennsylvania clubs that participate. New records in attendance were set last year when 358 individuals shot on the first day and 412 archers, representing 33 member clubs, registered for the team shoot the following day.

Much of the association's success can be attributed to the hard working president for the past four years, William R. Johnson. Bill, a longtime member of PSAA and an excellent archer in his own right, has been engaged in local and state activities for many years. His wife Susan, who has served as executive secretary, was overall tournament director for the previously mentioned tourneys at Harrisburg, with the assistance of Bill and Cookie Goetz.

Many committee members have long been associated with state archery in various capacities: Ron Beane, Ruth Cotner, Barbara Goss, Dick Goss, Jane Knorr, LaRue Knorr, Charles Myers, Craig Myers, John Pawlowski, Edie Sheibly, Bud Simon,

**AT Individual Championship Tournament, cinder block walls are no hazard to marksmen who pound target centers at 20 and 30 yards.**







**SUSAN JOHNSON**, executive secretary for 1985, was overall director for the two-day PSAA tournaments.



**BILL JOHNSON**, four times consecutive president of PSAA, which has held 24 annual indoor team tournaments.

David Walter and Karen Walter.

In total, those who shoot and assist at the state indoor tournaments, as well as the outdoor tournament held each summer at State College, represent a Who's Who in Pennsylvania archery. But each year there are new faces. Many register to get the feel of big-time tournament shooting as much as to test their abilities against the best in the state. A number of new state records were set last year in both individual and team indoor competitions.

There is something for everyone. Over the years the number of classes has grown so that any archer can compete at his own level of experience or preference in equipment. Such changes have been resisted by some on the basis that they create a hodgepodge of classes that confuses even the experts and increases the cost of tournaments—particularly on a local basis. But, right or wrong, the system operates, and it is difficult to argue against success.

A rundown on results at the double tournament described here illustrates

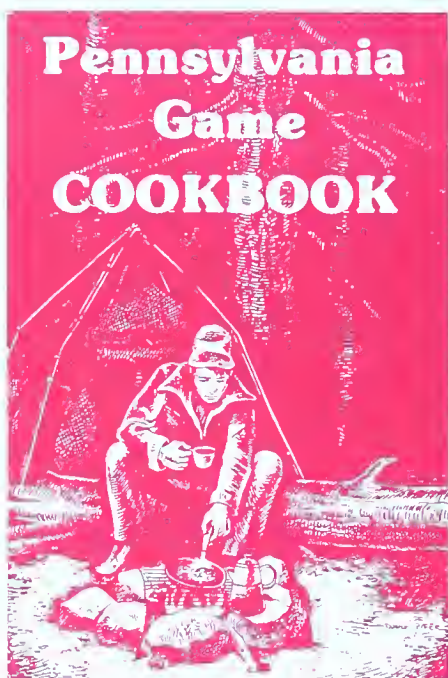
both the confusion, and yet the enthusiasm, generated by the "system." Because there are so many classes, there is room here to list only the leader in each. At least you will know what score you will need to place in your class should you choose to participate in the next Indoor State Tournaments at Harrisburg this April.

### **8th Annual Indoor Individual Championship Tournament**

("R" indicates a new state record)  
Aggregate score for 20 and 30 yards

Bowhunter Unlimited AA, Greg Harteis, 1184 (592R—30 yards); Bowhunter Unlimited A, Greg Wagner, 1148; Bowhunter Freestyle AA, Scott Schultz, 1159R (581R—20 yards, 578R—30 yards); Bowhunter Freestyle A, Clark Dunbar, 1101; Bowhunter Freestyle B, Robert Feagley, 1059; Bowhunter Freestyle C, Harry Clay, Jr., 1001; Bowhunter Barebow AA, Philip Miccio, Jr. 1075; Bowhunter Barebow A, Robert Crispell, 1060; Bowhunter Barebow B, Matthew Grosso, 946; Bowhunter Barebow C, Jeffrey Alderfer, 762;

Intermediate Bowhunter Unlimited, Jeremiah Frey, 1135R (564R—20 yards;



**Pennsylvania Game Cookbook** is a 96-page collection of delicious recipes submitted by **GAME NEWS** readers. It includes methods of preparing all kinds of game available in Pennsylvania, plus some recipes for moose, elk, and other species. \$4.00 delivered from **GAME NEWS** office.

571R—30 yards); Intermediate Bowhunter Freestyle, Peter Cossitor, Jr., 1065 (536R—30 yards); Junior Bowhunter Unlimited, Robert Butcher, 1062R (501R—20 yards; 525R—30 yards); Pro Bowhunter Unlimited, Elmer Rhoads, 1107 (549R—30 yards); Pro Bowhunter Freestyle, Larry Osman, 1104R (554R—20 yards; 550R—30 yards); Male Unlimited AA, Ray Decker, 1190 (597R—30 yards); Male Unlimited A, Danny Hackenberg, 1135; Female Unlimited AA, Pat Gauger, 1139; Female Unlimited A, Bonnie Levitsky, 1101; Pro Male Unlimited, Todd Shultz, 1182.

Intermediate Male Unlimited, Dan McClucas, 1174R (589R—20 yards; 585R—30 yards); Junior Male Unlimited, Richard Goss, Jr., 1135R (570R—20 yards; 565R at 30 yards); Junior Female Unlimited,

Paula Burgess, 1083R (548R—20 yards; 535R—30 yards); Male Crossbow, Jim Thomas, 1185; Female Crossbow, Lillie Stauffer, 1135; Male Barebow AA, Jerry Robbins, 1101; Male Barebow A, James Hrinda, 1017; Male Barebow B, Jim Conner, 999.

Female Barebow AA, Debbie Shultz, 1054 (520R—30 yards); Female Barebow B, Dot Sokoloski, 652; Intermediate Male Barebow, Robert Zeigler, Jr., 891; Male FITA Freestyle, Joe Coleman, Jr., 1112 (553R—30 yards); Intermediate Male FITA Freestyle, Corey Gearhart, 1081R (540R 20 yards; 541R—30 yards); Junior Male FITA Freestyle, Chad Sanders, 890 (436R—30 yards); Female FITA Barebow, LaRue Bruce, 733R (330R—30 yards); Cadet Male Freestyle, Brian M. Smith, 869R (461R—20 yards; 408R—30 yards).

### **24th Annual State Indoor Team Championship Tournament**

Women Freestyle, Butler Archers, 2142; Men Freestyle, Perry County Archers, 2255; Youth Freestyle, Perry County Archers, 2130, Youth Male FITA, Clairton, 1928R; Female Unlimited, Chucks's Archery, 2213R; Pro Unlimited, Beaver Valley Archery Asso., 2262; Male Crossbow, Luzerne County Bowmen—2363R; Bowhunter Barebow, Big Chiques Bowmen, 2135R; Male Barebow, Berwick Archery Club, 2050; Male Unlimited, Wantz's Indoor Archery, 2349; Bowhunter Unlimited, Luzerne County Bowmen, 2344R; Bowhunter Freestyle, Hemlock Field Archers, 2255R.

Junior Female Freestyle, Jeannette Sheaffer, 1031R (529R—20 yards; 502R—30 yards); Junior Male Freestyle, Todd Abromitis, 1069 (542R—30 yards) Intermediate Male Freestyle, Robert Weibley, 1068 (538R—20 yards); Intermediate Female Freestyle, Tammi Stites, 1053R (541R-20 yards; 512R at 30 yards).

Pro Male Freestyle, Bob Foulkrod, 1148; Male Freestyle AA, Scott Shultz, 1160 (583R—30 yards); Male Freestyle A, Tom Kern, 1114; Male Freestyle B, James Duffy, Jr., 1060; Female Freestyle AA, Melanie Skillman, 1121 (560R—20 yards; 561R—30 yards); Female Freestyle A, Cindy Good, 1054; Female Freestyle B, Jody Seman, 945; Male Longbow, Joel Templin, 615 (293R—20 yards).



# The 22 CHeetah

By Don Lewis

Photos by Helen Lewis

**“HOLD IT,”** Helen whispered. “There’s a chuck on the other side of the hollow. I’ll take the CHeetah for this shot.”

While Helen studied the chuck through her 7 x 42 Swarovski binoculars, Bill Nichols and I got the Cravener rest set up with the CHeetah cradled in the double-V forks. Helen eased onto the seat of the folding outfit and fed a round into the single shot heavy barrel.

“How far is it?” she asked.

“Maybe 250 yards,” Nichols replied.

“I’ll buy that,” I tossed in.

Helen took plenty of time aligning the 4-12X Redfield, and when the new wildcat cracked, the chuck crumpled.

“It looked like a dead center shot to me, and it seemed the bullet hit before the rifle cracked,” Nichols said.

“Speed is what the CHeetah is all about,” I remarked.

“It doesn’t make any difference how fast the bullet got over there, we won’t know if I connected until we check it out,” Helen cut in.

## Correct Evaluation

Bill was correct in his evaluation of the shot. The 55-grain bullet had struck just at the neck line, making an instant kill.

“I guess I have the distinction of making the first kill with the CHeetah,” Helen remarked. “If I’m not mistaken, you and Bill just fired this new varmint outfit *at* several chucks, or am I wrong?”

Nichols and I remained silent, studying several distant objects across the valley, but I can still see the sneaky grin on her face since she knew darn well Bill and I had both missed.

It’s always exciting for me to work with a new creation in the wildcat realm. The CHeetah came to life



**TO HELP** shooters visualize the new cartridge, the 22 CHeetah, left, is shown with the long-popular 22-250 Remington, undoubtedly the varmint load most often chosen for chucks at 300-400 yards.

through the efforts of Jim Carmichel and Fred Huntington (the reason for the capitol C and H in CHeetah), and the first report on it hit the varmint-hunting fraternity in the May 1984 issue of *Outdoor Life* in Carmichel’s regular SHOOTING column. I knew I wouldn’t rest until I had one. Varmint hunting runs strong in my bloodstream, and wildcat cartridges are my favorites. From my point of view, there’s never too much work or effort in case swaging, fire forming and loading a new wildcat creation. In a sense, I’m at my best when wildcatting. It wasn’t exactly the reported blistering speed of the CHeetah that filled my veins with adrenaline, it was simply the fact that another new design had come to life in the varmint realm.

In the *Outdoor Life* article, Car-

Michel explains how the CHEetah came to fruition. For several years he had toyed with the idea of incorporating modern accuracy technology in a quest for ultra velocity. He wanted to combine the best of both worlds in a varmint cartridge that reached out faster, farther and flatter than anything available on today's market, while at the same time providing tack-hole accuracy. His desire was to make long-range hits a practical proposition rather than just a theoretical possibility.

### Significant Factor

Carmichel went on to explain that a significant factor in benchrest shooting for the past decade has been the adaptation of small-size rifle primers to large cases. I won't get too involved in this, but when it came to light that this was more than just a passing idiosyncrasy of the benchrest clan, Remington came out with a 308 case having a small primer pocket.

In this column, I don't want to get wrapped up in the differences between the large and small primer. There are many misconceptions about the two primers, but these can wait until a later date. However, just to help understand why the small primer is beneficial in large cases in an accuracy sense, it's fair to say it ignites less powder due to its smaller volume of priming compound; also, the smaller flash-hole helps control the primer's force. Carmichel felt that by making ignition more uniform, there would be more consistent barrel and action vibration, which are major factors in rifle accuracy.

This pretty much establishes why and how the CHEetah came into existence. Carmichel goes into a lot more detail on the ballistic side, as he is the major designer of the new wildcat.

There are several versions of the CHcetah, depending upon the angle of the neck. I like the looks of the Mark I with the very sharp 40-degree neck. The Mark II has a milder 28-degree neck angle. Everything in this

article pertains to the Mark I, but I will refer to it as the CHEetah.

I began my project by using a Mauser action, Douglas No. 6 heavy barrel, and a Brown Precision fiberglass stock from Brown Precision, Inc., 7786 Molinos Ave, Los Molinos CA 96055. Jim Peightal of Ernest chambered and assembled the outfit. As fiberglass stocks are painted, I suggested using a dull wrinkle finish. This may sound a little on the exotic side, but Chet Brown says their High Country finish is a tough, industrial, non-glare paint that virtually eliminates brush wear. The wrinkle texture allows a non-slip grip even in wet weather.

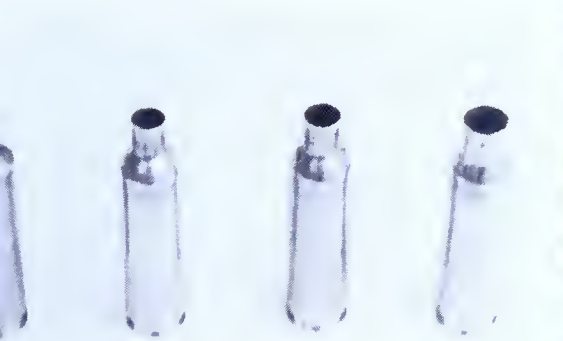
More and more varmint hunters are making the swing to fiberglass. Brown says that unlike wood stocks, fiberglass is not affected by humidity, rain and extreme temperature variations. Thus it remains absolutely stable, maintaining its bedding and, most important, its point of impact. It's also lighter and stronger than wood, resistant to brush damage, breakage and even scabbard wear.

### What a Wildcat Is

Maybe I should explain what a wildcat cartridge is. It doesn't have to be a super velocity creation, although most wildcatting done up to the mid-1950s was basically the quest for more speed. A wildcat cartridge is a modification of a conventional factory cartridge. It is not and never has been in commercial production. For instance, Jerry Gebby's old 22 Varminter was made by simply running a 250-3000 empty case into a resizing die. With one sweep of the reloading press handle, the neck of the 250-3000 was reduced to accept a 224 bullet and a







**STEPS IN FORMING the CHeetah case from Remington's 308 BR brass, above. Fire-forming produces the 40-degree shoulder. RCBS compound-leverage tool, right, makes case forming easy.**



wildcat cartridge was born. Now in commercial production, this cartridge is known as the 22-250.

Not all wildcat cartridges see the light of day in such a simple manner; most of them go through a series of swaging and forming dies before they are full-fledged wildcats. This happens to be the situation with the 22 CHeetah. For years, RCBS has specialized in wildcat dies, and the CHeetah soon became a stock item.

The case forming die set consists of three forming dics and one special die designed to incorporate an inside neck reamer that comes with the die set. The reloading die set consists of a regular full length sizing dic and a bullet seating die.

I want to point out that precision forming dies are never inexpensive, and that's true with the Mark I dies. However, this investment could be made on a partnership setup with three or four CHeetah builders involved. Once the Remington BR case is swaged and fire-formed to the CHeetah chambering, it is reloaded in the conventional manner. The reloading dies are not as expensive as the forming dies.

Reducing the 30-caliber neck on the Remington BR case to the 22-caliber CHeetah is done in a series of steps. For instance, I ran 40 BR cases through die No. 1, which brought the neck down from roughly .306 to .270;

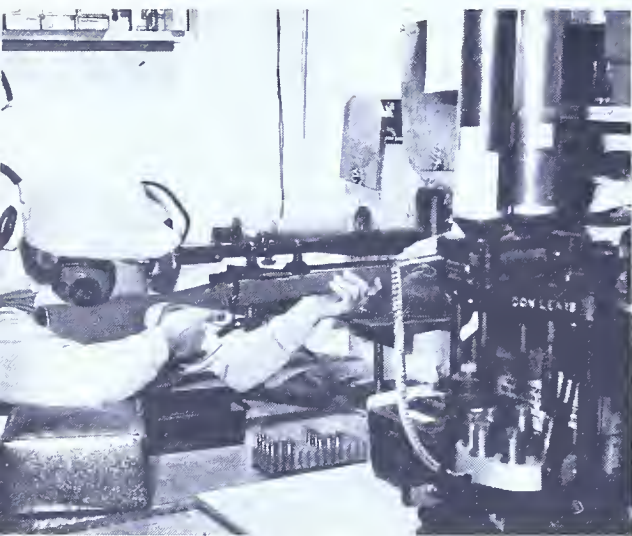
die No. 2 reduced it to .240; die 3 to .230. These are only rough measurements made with a dial caliper and could vary with other die sets.

As the neck is being reduced, it gets longer. It must be trimmed to proper length while still in die 3. This is accomplished by filing off the protruding brass. Since the die is extremely hard, the file will not scratch or mar it. For many years I have used a Forster Power Trimmer on my drill press. I trim all formed cases before neck reaming and chamfering.

### Reaming Essential

Inside neck reaming is essential. It doesn't just wipe out any high spots. It cuts the neck to a uniform thickness so there will be only minimal neck tension on the bullet. For the big game hunting buff, this type of neck pressure might not be desirable, but the benchrest shooter knows light neck tension on the bullet contributes to accuracy. Even though bullets are seated tightly enough to prevent slippage, in the field I carry my CHeetah loads in an MTM plastic ammo box.

It takes considerable power to swage cases, and it's essential to use a very strong press. Down through the years,



LEWIS'S CHeetah is built on a Mauser 98 action with No. 6 Douglas barrel and Brown fiberglass thumbhole stock. Scope is Bausch & Lomb's 6-24x. Jim Peightal did the gunsmithing.

I've used many types of presses for case forming, and the old style straight ram press required a husky push on the handle. Newer press designs incorporating a compound linkage system take much of the work out of case forming and bullet swaging. I formed my CHeetah cases on RCBS's Big Max heavy duty reloading press. This massive press with its long, shovel-grip handle requires virtually no effort to operate on even the toughest cases.

The Big Max has an automatic shellholder that is suitable for most popular cartridges. An adapter is included for thick-rim cases such as the 45-70. As the handle is lifted, the extractors are cammed open near the bottom of the ram stroke and close upon the up stroke. Simply place the case in the top recess and the extractors grip the case firmly as the ram moves upward. It's self-centering, and there is no need to guide a case into any of the dies.

Fall caught up with me before I could really put the new outfit through range and field tests. Consequently, I don't have too much yet in the way of ballistics. The little chronographing I had time to do with 4350 powder and Speer and Hornady 55-

grain bullets gave readings around the 3850/4100 fps mark at 15 feet from the muzzle. I didn't have chance to use other powders, but that will come early in the spring of 1986.

Bore cleaning is *mandatory*. When copper clad bullets are screaming up the barrel in the 4000 fps category and faster, bore fouling is a real hazard. It can mean the early death of a barrel. From my own point of view, I feel the CHeetah barrel should be cleaned with bore solvent every 20 shots. This takes time, but it's a prime requisite if you want to keep your CHeetah accurate. I use Gold Medallion bore solvent in a warm barrel since it requires no brushing, and it takes but a minute to swab and dry the barrel.

### Future?

The CHeetah is very new and somewhat exciting to the wildcat fan like myself. What kind of future will it have? That's a hard question to answer, but as long as it remains a wildcat its future probably won't be overwhelming as most shooters don't want to get involved with non-standard outfits. Also, the CHeetah is not an inexpensive outfit to assemble if top quality components are used, and its accuracy is no greater than the 22-250's.

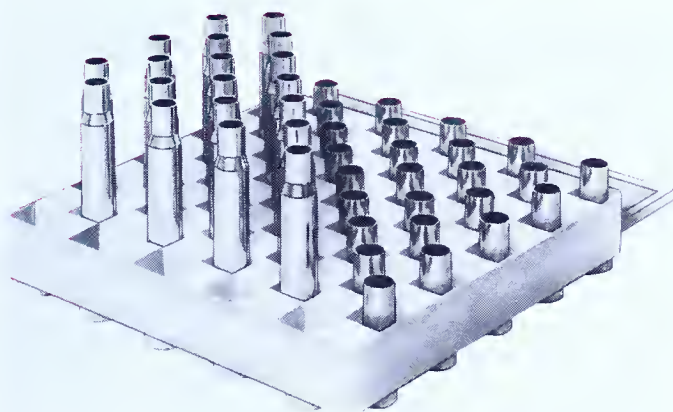
True, the CHeetah offers more speed, but it is more eccentric than conventional factory varmint rounds. Still, it's the new kid on the block, and the varmint hunter who wants a new challenge can find it in the 22 CHeetah.





## **GUNnews for Shooters . . .**

**NEW** high performance 257 Roberts (+P) load with 117-gr. Hi-Shok bullet is available from Federal. Muzzle velocity is 2780 fps, energy 2010 fp; retained energy at 400 yards is over 1000 fp. An excellent load for the fine old 257. (Federal Cartridge Corp., 2700 Foshay Tower, Minneapolis, MN 55402).



**New 2-sided molded plastic loading block provides space for 50 cartridges on each side. Handles handgun cases through 45 caliber, rifle cases through 458 Magnum. (Lyman Products, Rt. 147, Middlefield, CT 06455.)**

### **Here and Gone**

Humans aren't the only ones with undertakers — bees have them too. Less than an hour after a honeybee dies, another bee carries the body as far as 400 feet from the hive before dropping it. Scientists believe this undertaking is in response to a chemical emission from the dead bees.

### **Simplifies Feeding**

If you try to starve a snake, you might have a long wait. Because of the size of their stomachs, some snakes can go as long as six months without eating.

### **Unfairly Maligned**

Few people realize that bats are gentle, intelligent, meticulously clean, and frequently beneficial animals to man. They eat pesty insects, are nature's most important seed dispersing mammal, and pollinate many valuable crops of fruit and nuts.

### **And a Splitting Headache**

Bighorn rams, while battling to establish dominance in the herd, sometimes clash at speeds of 30 miles per hour. Usually, the only injury is to the loser's pride.

# *In the wind*

bob mitchell



In the early 1960s, Louisiana closed the alligator hunting season because the population had dropped to about 50,000. Seasons were reinstated in 1972, when the state received exemption from the federal Endangered Species Act. Antihunters protested the reopening, saying the move would encourage poaching. Such has not been the case. Since 1972, 130,000 alligators have been taken legally and, because of good laws, strict enforcement, and a great deal of support from the courts and the public, poaching has been negligible. Today, Louisiana's alligator population numbers around 500,000 and is increasing at an annual rate of 10 percent.

**While checking active osprey nests in Connecticut, two nestlings were found dead. The young birds died of strangulation caused by discarded monofilament fishing line the parents had scavenged for nest material.**

For subleasing his grazing privileges on National Forest lands, a Utah man received a 6-month jail sentence, was fined \$2500, and was ordered to pay the federal government \$30,000 in restitution. For the privilege of grazing livestock on a National Forest, the U.S. Forest Service charged \$1.35 per head per month. In subleasing, the rancher charged up to \$11 per head per month. According to the Wildlife Management Institute, this kind of deal is fairly common on public lands in the West. Despite several proposed bills intended to raise grazing fees to near market values, the only one still under consideration as of early October was one designed to renew the current grazing fee formula for an indefinite period.

The U.S. Department of the Interior reports that over \$167 million in federal fish and wildlife funds has been provided to the states and territories in the first of two apportionments for 1986. These funds are derived from excise taxes on sporting equipment. Of this total, \$87.8 million is for wildlife restoration. Pennsylvania received \$3,753,515 for wildlife, more than any other state except Texas and Alaska.

In 1970 and 1971, federal excise taxes were placed on handguns and archery equipment, and up to one-half of the funds derived from these taxes are made available to state agencies for hunter education and the construction and maintenance of public shooting ranges. A total of \$143.3 million has been made available, but only \$74.5 million (52 percent) has been used for these purposes—47.7 percent for hunter ed., 4.3 percent for ranges. This does not suggest mismanagement, as states are permitted to use these funds for other purposes. However, pressures are growing in many states to have more of these funds used for public shooting ranges, which can also be used for hunter education.

The Wyoming Wildlife Protector's Association—a group of private citizens concerned about the state's wildlife—was given a moose license by Governor Ed Herschler. The group auctioned off the license for \$7500 and will use the money to help administer the state's Stop Poaching reward program.

The Montana Department of Fish, Wildlife and Parks recently wrote to three Canadian provinces and 16 Western states, asking if they would be willing to receive grizzly bears in an effort to reestablish the threatened bear to former habitats. According to the New Mexico Game and Fish Department, most of the respondents declined, saying they didn't have room for both people and grizzlies.

**The South Dakota Department of Game, Fish and Parks has recently enacted some of the toughest poaching penalties in the country. The fine for poaching a mountain goat or bighorn sheep is now \$10,000; for elk or buffalo, \$5000; and for deer or antelope, \$1000. Further, for taking small game birds out of season, poachers can now be fined \$500 per bird.**





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## Outdoor Recreation Maps

To help outdoorsmen discover more of what Pennsylvania has to offer, the Game Commission has produced six "Outdoor Recreation Maps." Each multi-color 24 x 36-inch map covers one of the Commission's field regions. Highlighted are Game Lands, State Forests and Parks, and private lands enrolled in the Commission's public access programs. Also depicted are municipalities, roads, waterways, and — giving the map a three-dimensional appearance — 100-foot contour lines. Maps are printed on Tyvek, a tear-resistant, water-repellent material which will withstand years of hard use. Each regional map costs \$4 delivered, and can be ordered from the Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567. If you are not sure of which maps you want, write for a PGC map order form.



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## The 1985 Farm Act

THE 1985 FARM ACT, which will govern agricultural programs for the next five years, was recently signed by President Reagan. The act is important to everyone because it embodies significant conservation measures, including "sodbuster" and "swampbuster" sections, plus sections on conservation reserve and conservation easement.

Under the sodbuster provision, farmers will become ineligible for agricultural subsidies if they bring highly erodible land into cultivation, unless they do so under a conservation system approved by their local soil and water conservation district or the Secretary of Agriculture. The swampbuster provision will withhold federal subsidies from landowners who drain wetlands to produce crops. The Agriculture Secretary will consult with the Interior Secretary to issue swampbuster regulations.

According to the National Wildlife Federation, recent studies have put the cost of soil erosion in the U.S. at \$6 billion per year. It is said that in 1982 alone three billion tons of soil were lost from America's croplands. That's enough to cover a square-mile field with topsoil a half-mile deep. Another two billion tons were lost from pastures, rangelands and forests. That means topsoil is being lost at a faster rate than natural processes can replace it. Furthermore, from the mid-'50s through the mid-'70s, almost 10 million acres of wetlands were lost, with agricultural activities accounting for more than 80 percent of this. It is numbers such as these which brought this Act into existence.

The conservation easement of the 1985 Farm Act authorizes the Agriculture Secretary to acquire interests in farmland for conservation, recreational and wildlife purposes. Easements may include wetlands, uplands, and highly erodible soils. The provision allows farmers to retain ownership of heavily indebted land and provides benefits to the public for reducing mortgages.

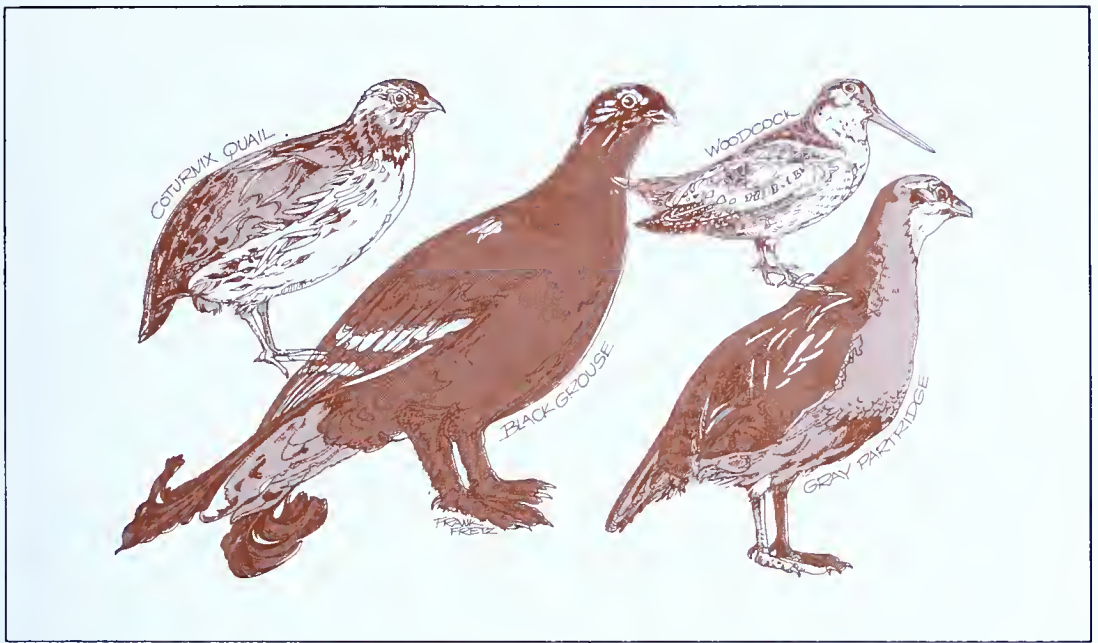
Under the conservation reserve, not less than 40 million acres nor more than 45 million acres of highly erodible cropland may be retired for ten years from commodity production. Land will be accepted into the program through the 1990 crop year under a voluntary landowner bidding process. It will be planted to perennial grasses, wildlife habitat, windbreaks or trees. There is a potential for planting trees on 4-5 million acres, which could be the largest tree-planting program in U.S. history, exceeding even the reforestation accomplishments of the Civilian Conservation Corps and the Soil Bank programs.

In addition, the 1985 Farm Act allows the Agriculture Secretary to withdraw a percentage of a farm's acreage from production of feed grains, wheat, cotton and rice, if surplus stocks are large. Such retired lands would also be devoted to wildlife production and other conservation uses.

On a national level, it is expected that over \$50 billion will be spent on the 1985 Farm Act. At this time it is not known how many acres in Pennsylvania are eligible for inclusion.

The ultimate results of this program can be enormous, if they come anywhere near intentions. We hope they do.—*Bob Bell*





# Early Upland Game Hunting

By Bob Alison

**T**HE ROOTS of sport hunting are deep indeed. That is well known. It has been practiced in many forms, not the least of which is upland game hunting.

Lost in the glory and pomp of the great big game hunts of yesteryear, upland game hunting got off to an inglorious start. Of course, upland game was never considered to be so worthy or desirable a trophy as the stag, the boar, the lion or the elephant. In most cases, it was not thought to be a trophy at all. Rather, it was the target of the common hunter, the man who could not afford expensive hunting gear and whose reputation did not demand that he take only status prey.

From the beginning, upland game provided recreation for the middle and lower classes, whereas big game was more or less exclusively reserved for the use of kings, emperors and aristocrats. That is not to say that they, too, did not hunt certain upland species. They did. But, conscious of their elevated status and precious im-

ages, they did not normally devote too much time to it. They had nothing to gain by it except, perhaps, a bit of fleeting pleasure.

Since the vast majority of historical documents and other memorabilia deal not with the activities of common people but rather with those of celebrities, accounts of upland game hunting are rare. They are scattered among the texts of long-lost societies. For the most part, they are not easy to find.

## Rivalry

It is hard for us to imagine the significance of any type of sport hunting in ancient times. There was a great deal of rivalry among sportsmen back then. Everyone wanted to take the most powerful lion, the largest stag, the greatest elephant, and so on. In that way, they could out-boast their rivals. There was not much glory to be had from killing a lowly hare or a puny partridge, so they were taken only as a last resort.

Anyone doubting that image was

important to historical figures need only consider Arrian's tale, dating to A.D. 130. It seems that Alexander of Macedon was hunting with an adolescent named Hermolous, son of Sopolis. On one occasion, a wild boar charged the two and Hermolous struck it down before Alexander could do so. Alexander was livid. He ordered his companion to be publicly whipped—for upstaging him.

So game animals were used to bolster prestige. Naturally, upland game had to take a back seat to big game.

It is not too surprising that there are scant references to upland game hunting in ancient Egypt or Mesopotamia. The leaders in those civilizations were warrior-kings who took pride in their hunting exploits. They did not want to be remembered as the slayers of hares or hunters of quail.

### The Roman Period

So, it was not until the Roman period that upland game came into its own. According to Marcus Varro, writing about 60 B.C., the Romans often constructed large enclosed areas called leporariums in which wild hares were set free. Mostly, the leporariums were an acre or two in size, but Quintus Fulvius Lippinus had a huge one near Tarquinii and there were other larger ones in Gaul.

Leporarium walls were “covered in plaster and high—to make it impossible for a weasel or a badger or other animal to enter.” In the larger ones, hares were hunted with hounds—at the pleasure of the owner. Three kinds of hares were kept—“this Italian species of ours . . . the hare which is born in Gaul near the Alps . . . (and) the one which is native to Spain. . . .

A few other Roman authors mentioned hares as game—notably Aelian who, in A.D. 200, wrote that hares pursued by Roman “hounds and horsemen . . . start up and lie hidden, but since they are constantly forced out, not one escapes.

“The hares slip through the little bushes,” he continued, “but where it

is denser, they naturally leap over them. Where the bushes are . . . in a solid mass with the branches intertwined . . . the hare is constantly obliged to do so. At first the hounds are baffled and lose the track . . . but finally they catch the sight of it and are after it . . . (and) the hares are exhausted by the continual leaping. . . .”

A number of hare hunting scenes on red clay jars from Lucania, Campania and Sicily date to the 3rd century A.D. and are preserved in several European museums—just to emphasize the point.

From Italy, hare hunting spread to Europe. It took England, in particular, by storm. It was so popular that by 1604 English officials began to worry about declining stocks of hares. In that year James I put into effect a law “. . . against the destroying of hares with hare-pipes, and tracing hares in the snow.” This law was directed against the “vulgar sort (of hunters), and men of small worth.” It prohibited the hunting of hares “in the snow” after August 1, 1604, and went on to outlaw the use of hare snares. That was probably the first hare law ever put into effect.

By the beginning of the Christian age, upland game bird hunting was already fairly popular. The Roman Pliny, writing in A.D. 23, observed that “wild partridges . . . are captured owing to the fighting instinct . . . (and) when the leader of the whole flock comes out to battle against the fowler's decoy and when he has been caught number two advances and so on, one after another . . .” In the spring, females were taken in the same way.

According to Nemesianus, writing in A.D. 284, the Romans took grouse, called tarax, regularly. The bird, “although being present nearby while a trap has been put in place . . . it walks right in.”

A hunting pavement at Oudna shows a 4th-century Roman stalking four partridges. And a 5th-century wall mosaic in the Martyrium of Seleu-



cia at Antioch shows a great procession of popular game birds of the time.

From the Roman world, upland game bird hunting caught on rapidly, particularly in the Mongol Empire. According to Marco Polo, Kublai Khan was such an avid upland game bird hunter that he "causes millet and other grains that attract . . . quail and partridges . . . to be sown along the sides (of the valley of Chagan Nor) every season." Keepers were stationed there to ensure that the birds were not molested, and to feed them.

"In consequence," related Polo, "he always finds abundant sport when he visits this country."

Upland game birds were popular in medieval Europe as well. They were so often hunted that James I of England condemned the "destruction" of pheasants and partridge and clamped a closed season on both in 1604. In 1609, he banned their taking by hawking during July and August, with a penalty of 20 shillings for each bird illegally taken. In the same year, it became unlawful to "take, kill or destroy any pheasant or partridge" by means of any sort of net or snare.

In 1710, Queen Anne prohibited the hunting of "any pheasant, partridge, moor, heath game or grouse in the night time."

These steps were monumental ad-

vancements in upland game bird management. The only other society that had bothered to create laws regarding upland game birds had been the Mongols—Genghis Khan had set a closed season on pheasants, quail and partridge from "March to October" in the 12th century A.D.

Of course, hares, pheasants, quail and partridge were not the only upland game hunted by the ancients.

On woodcock in the 3rd century A.D., the Roman Nemesianus wrote, "when the trees are shedding their leaves, make for the high forests: the woodcock is an easy and agreeable prey. . . . It is found at the bases of banks, in places where creeks flow, looking for worms . . ."

Naturally, the distinction between what was or was not game (as opposed to nongame) depended upon what laws were in place. Since most early societies had not cared to put in place upland game laws, just about everything fell into the "game" category. Robins and finches and squirrels—all were in the same class. Indeed, it was not until the late 1800s when Queen Victoria decided to spell out what was, or was not, upland game—or, at that time, "ground game"—that some form of distinction was made.

Despite its slow start, upland game hunting had caught on before the last century B.C. Three hundred years later, it had become a passion with some sportsmen.

In A.D. 284, Nemesianus wrote, "I roam the wooded valleys, the expansive meadows and the barren plains; I course quickly here and there . . . hoping to take, with the help of my well trained hounds, all sorts of quarry. I take timid hares, brave wolves and the tricky fox . . ."

Statements such as that heralded the arrival of a new form of hunting, one that would challenge big game hunting and waterfowl hunting—both already firmly in place all across the globe by the time the first pyramids were being constructed in ancient Egypt.

### First-Time Hunters and Trappers

*All first-time hunters and trappers are reminded they must take a Hunter-Trapper Education course before they can buy a hunting license or a furtaker's license in Pennsylvania. Each year there is a rush of students trying to get into a course just before the season opens. It is impossible to take care of some of these, so they are disappointed. If you want to hunt or trap this year, it is advisable to take this course immediately. Check the sporting pages of your newspaper, your area sportsmen's club, or with the nearest Game Commission officer for dates and locations of courses.*

*Do it now!*

# *Passing the Whistle*

By Bob Cubbins



*G. Fawcett*



MY WIFE was raised with cats. Cats, I was told, are no trouble. They're odorless, they're small, they eat very little, they come into the world already housebroken, and they're decorative. With their sonorous purring, they soothe the troubled hearts of those they keep. They're not independent and aloof—they're well-adjusted; they're not intractable—they're simply too smart to jump at man's commands. Tolerant creatures, cats! *Cats are wonderful.*

Dogs, on the other hand, are a nuisance. They're too big. They're constantly underfoot. They eat enormous quantities of expensive food, require endless months to housebreak, and decorate a home with furfuraceous droppings from diseased skin. They smell. They annoy the neighbors with their incessant barking. Their questionable obedience is nothing more than the servile behavior of inferior beasts at the feet of those whom they fear. Dogs chase cats. *Dogs are awful.*

These were intimidating pronouncements to a man who counts among his best friends a long succession of setters. Even more intimidating was the suggestion that dogs would not be tolerated in our house.

Yet I brought home a yearling setter bitch one fall afternoon. I'd been chasing birds for two years without a canine partner, my partner of former years having left me all too suddenly. Never again, I vowed, would I be caught tramping the coverts without a dog.

She was a pretty thing, small for a setter, with a fine sensitive head and soft intelligent eyes. Heavily ticked, she wouldn't show up well in the brush, but she had good conformation and the temperament I wanted. I'd look carefully for a stud.

I'd breed this little gal. I'd have the fattest litter of setter pups in dogdom. From her offspring, I'd select a male to lie by my feet at the tying vise on windy March days, to search the ridges and valleys in the burnt umber of autumns, to share with me that which only the hunter and his dog can share.

I drove into the yard to find my wife

sweeping the back stairs.

"What's its name?" she said.

"You mean *her* name?"

"Where are you going to keep it?"

"You mean *her*. Where am I going to keep *her*? In the house, of course."

"Not in *my* kitchen, you're not," she said.

"Who said anything about the kitchen? I'll take care of her. Don't worry about it."

"Well, I'll not have that dog messing up the carpets and lying all over the furniture. And there are some nice cats in this neighborhood. I hope you'll keep it leashed."

### Armed Neutrality

In the weeks that followed, I managed somehow to keep the little setter out of the kitchen and off the furniture. Keeping her under constant surveillance, I also managed to housebreak her with unprecedented ease, and she learned quickly to stand at the door to be let out. My wife regarded her with armed neutrality, as if waiting for the right moment to say, "That dog's just *too* much trouble."

Her lesson learned, Misty stayed where I'd taught her to. She slept on the foot of my bed, a disposition which prompted a curt, "I suppose she'll be under the covers next."

Here I began my search for a stud, for her second heat was imminent.

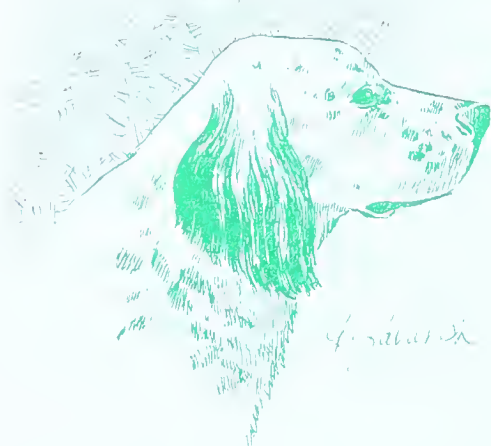
Strange things began to happen at this point.

One night as I sat in the den reading, Misty appeared with a rawhide chew of gigantic dimensions. "Where," I asked, "did Misty get this thing she's chewing on?"

"I bought it for her. The poor thing has nothing to play with."

"Oh," I said. I put the book down to consider this development. I could guess only that the chew had been purchased because it was on sale.

A few days passed, and a red ball appeared in the foyer. A day or two later, Misty sported a plastic flea collar—I had never seen a flea on her—and following a steak dinner in a local restau-



rant one night, the waiter handed my wife a doggie bag, which she quickly concealed in the pocket of her raincoat.

On the way home I asked, "What's the doggie bag for?"

"A bone for Misty, of course, silly!"

Never before had my wife referred to Misty by name. Misty had always been simply, "the dog." Later, I caught my wife turning the pages of a book with one hand and scratching Misty's ears with the other. "That feels good, doesn't it!" she said. Not satisfied with the rhetorical question, she answered it herself. "Yes, I know . . . that feels so-o-o good."

The time had come.

"Honey," I said, "I've found a stud for Misty."

"A what?"

"A stud! A father for her pups."

"You didn't say anything to me about puppies."

I held my breath. My wife regarded Misty with the gentle solicitude of a nurse tending a sick patient. "But she's only a puppy herself. *How* can *she* have puppies? *How*?"

"Honey, she's ready for her second heat, and we can breed her now. I've checked with our vet, and she's in tip-top condition."

Here the phone rang and the conversation was forgotten.

Sitting at the dining room table the

next night, my wife asked, "Can you build a whelping box? I stopped in to see the MacPhersons today, and they have six black lab pups. Muriel said we have to build a whelping box. Where will you put it? How many pups will Misty have anyway? Will we need the vet here when they come? When do they open their eyes? When do we start feeding them? You know, I read an article the other day about eclampsia, and—"

"Where did you read an article about eclampsia?" I asked.

"Well . . . can you build a whelping box or not?"

"Yes, dear. I'll build a box. We haven't even bred her yet."

"You have to make a nice warm bed for her, you know. Don't you have enough wood in the cellar now?"

"Yes, dear," I said, "I'll do it tonight."

A month later the stud arrived, a big rangy tricolor that sensed his calling before the door had closed on the station wagon.

"Oh, he's beautiful," my wife said. "Will the pups look like that, honey?"

"Very similar," I said.

The big dog dragged me to the basement door and down the stairs to where Misty waited.

"What are you going to do with them now?" my wife asked.

"Just let nature take its course, hon."

"Oh, poor Misty!"

### Nature's Wisdom

Ten minutes later, I'd convinced her of Nature's wisdom. I'd been exonerated and taught the folly of assuming that cat lovers know anything about dogs.

Two days later Misty and Beau had a second union. My wife attended this meeting, and I was told to flourish less, move more deliberately, avoid breathing. "You're making them nervous," she said.

Reminded of the petulant floor nurse in pediatrics, I muttered something.

"Be patient, dear . . . patient. Nature will not be hurried."

It was at this point I began to think of subjugation. Here I was, veteran of



countless observations of setter matings, being told to sit still, to flourish less, to *be patient*. Hmph! Precursor of things to come?

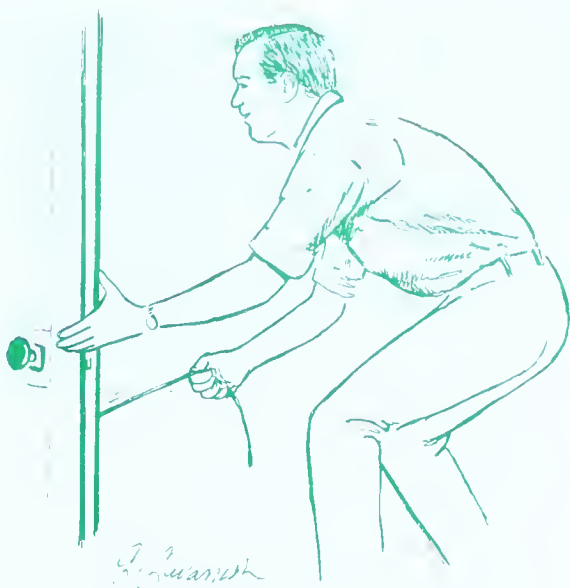
Sixty-two days later nine healthy pups arrived. Only two males. And the training whistle passed.

Do you know what it is like to love pups and not be able to handle them? To change bedding to a refrain of, "Don't shake them now . . . don't shake them"? To scrub with the surgeons before visiting hours? To explain to friend Bill, who has raised dozens of litters in his day, that he can not see the pups yet, for "Mommy is tired from all that kneading of her breasts, and we can't risk sour milk for the pups now, can we"? To be told that eight-week-old pups shouldn't play with dirty old grouse tails?

Would you believe that many years and many litters later the rules have not changed? That *more* rules have been appended? That I am up to my *ears* in setters? That the woman of the house regulates their activities, telling me which of the aggregation I can hunt on any day, which should not be fed table scraps, which require more affectionate handling, which are ready to be worked on the wing, which are now to be broken to the gun? Which have sore tails from whipping brush, and which need to rest the pads of their feet?

Are you aware . . . I mean, do you *know* . . . that chewed-up piano benches, shredded drapes, and spotted carpets are *only* chewed-up piano benches, shredded drapes, and spotted carpets? That *things* can be replaced? Or repaired? Or just forgotten or ignored? *Things* are unimportant.

When prospective buyers phone



**THE BIG dog dragged me to the basement door and down the stairs where Misty waited. Sixty-two days later, nine healthy pups arrived.**

about pups, who quotes the lineage from Count Gladstone to Grouse Ridge Smokey? Who can quote the ingredients of fifteen dog foods and discuss with medical expertise the effects of heartworm, roundworm, hookworm, mange, ear mites, ticks, fleas? Who can offer a cure for any one of a hundred maladies to which dogs fall heir?

Who gets up in sub-zero temperatures to put on a robe and run through the snow to offer *hot* meals to setters? Who in the waning days of summer is to be found whistling setters through the fields, combing out burrs in the moonlight, and suffering the weight and warmth of beasts on her bed when the thermometer soars? Who thinks that a painting of a pointing setter is lovelier than a Degas, a Rembrandt, an El Greco, a Winslow Homer?

Anybody know a good cattery?

### Cover Story

Red-breasted mergansers are among the most colorful and graceful of birds. Large flocks of these fish-eating ducks are found in Pennsylvania during their spring and fall migrations. They nest across Canada and spend the winters along the Great Lakes and the Atlantic Coast. The red-breasted merganser also is one of the fastest fliers; it's been timed at 100 mph.

# Forests and Wildlife, 1986

By Bob Mitchell

Assistant Editor: GAME NEWS

**1986** has been proclaimed as the "Year of the Forest" in Pennsylvania. Governor Dick Thornburgh made this proclamation to increase public awareness of our state's forest resources and the many benefits they provide.

From our forests come the raw materials that support a wide variety of industries and jobs. Paper products, construction materials, fine furniture and a host of other goods make the forest product industries a multi-billion dollar enterprise in this state.

Forests clean our waterways and curb soil erosion, and their value as a recreational resource is beyond calculation.

Pennsylvania's forests also sustain the state's wildlife. Nearly every kind of animal found in the state depends on at least one forest habitat type for food and cover needs. Forests are being managed today according to sound silvicultural practices designed to provide the maximum sustained yields of timber. Not just coincidentally, these practices, being ecologically based, also benefit wildlife. The fact that we have such abundant wildlife resources is largely attributed to the wise management of our forests today.

Such was not the case in the later part of the 19th century. Forests in Pennsylvania — along with those in the rest of the nation — were being cut as though there was an endless supply. Loggers cleared vast areas of all trees and left burned and barren landscapes behind. There were no concerns for the future. As a consequence, most birds, mammals and other forest animals disappeared, and exposed soils washed into waterways and destroyed most aquatic life. As the trees disappeared, so did wildlife.

At the turn of the century, the timber boom was drawing to a close. It became apparent that forests were not inexhaustible. The first decade of the 20th century saw the birth of modern forest management. Universities began training professional foresters and fundamental forest management practices replaced rampant exploitation.

Wood, people discovered, can and should be nurtured like agricultural crops. Foresters developed harvest schemes based on the time it takes a forest to produce a marketable stand of timber. Basically, forests are managed on 80-to-100-year rotation schedules in which a small percentage of a particular management unit is cut per year. Such a procedure results in optimum sustained yields of timber from year to year. The procedure also results in good conditions for wildlife.

A properly managed forest includes a variety of habitat types, from newly cut areas and stands of young seedlings to shrub and sapling stages, pole timber and mature timber stands. In this variety of forest successional stages the food and cover needs of many wildlife species can be found. Rabbits, sparrows, mice and voles, for example, thrive on the early stages, while squirrels, chipmunks, warblers and vireos exist on the older stages.

Just managing timber on a rotation basis is beneficial to birds and mammals, but additional practices have been developed to further enhance conditions for wildlife. Many of these considerations were instituted in the 1960s, when people began to appreciate forests for reasons other than just timber production. Legislation enacted then dictated that most publicly owned forests be managed for multiple purposes. Wildlife, recreational





**GOOD forest management, above, not only helps wildlife but also controls soil erosion, left. Specialists from private and government groups are anxious to help landowners develop sound forest management practices on their properties.**

and environmental concerns became major considerations in management policies.

Because edges—the borders between different habitat types—are especially valuable to wildlife, areas are often cut in irregular shapes, not blocks, to maximize this edge effect. At least 35 kinds of birds and 19 mammals in Pennsylvania need cavities. Snag trees and potential snag trees are often left standing to provide nesting and shelter for this group of animals. Trees and shrubs especially beneficial as food producers, such as dogwoods and hawthorns, are protected during cutting and also left standing.

The USDA Forest Service surveys Pennsylvania's forests at 10-year intervals. According to the most recent inventory, conducted in 1978, 58 percent (16.7 million acres) of Pennsylvania is forested. Of this, 95 percent (15.9 million acres) is classified as commercial forest, meaning it's potentially capable of producing wood for industrial purposes. Twenty-two percent (3.5 million acres) of the state's commercial forests are on publicly owned land. This means 78 percent (12.4 million acres) is privately owned.

The Game Commission's forest management policies were noted in "Managing for Wildlife," in our October, 1985 issue. The agency specifically manages forested portions of State Game Lands to maintain optimum habitat diversity for wildlife. Pre-

scribed amounts of openings, ever-green cover, and the various forest successional stages are developed and maintained on each forest management unit.

The Pennsylvania Department of Environmental Resources' Bureau of Forestry manages the 2.2 million acres of public forests under its jurisdiction according to the same principles. Federal mandates dictate that wildlife, recreation and other multiple use considerations be incorporated into the management plans governing the half-million acres of federal land in the Allegheny National Forest. Consulting and private foresters, too, are beginning to incorporate wildlife management considerations into their planning.

### **Sadly Neglected**

A significant amount of privately owned forests, however, is sadly neglected. According to the Pennsylvania Forestry Association (PFA)—a 100-year-old private, nonprofit conservation organization—of the nearly half-million people who own the 12 million forested acres in private ownership, only one in five is making an effort to develop and manage these properties. The 80 percent that is being neglected represents the largest untapped resource for timber and wildlife in the state. The problem is that many forest



**Snag trees and potential snag trees are often reserved to provide chickadees and the 53 other kinds of birds and mammals with sites for nesting and shelter.**

**Steve Maslowski**

owners purchased their properties for recreation and to enjoy wildlife, and are under the mistaken impression that for these purposes no management is best.

The challenge facing resource managers today is to make this large majority aware of the fact that wildlife, recreation, and esthetics are all goals that actually can be enhanced with proper forest management. Penn State University, the Department of Environmental Resources, and the Game Commission all help forest owners get more from their properties. A specific goal of the PFA is helping landowners realize maximum benefits from their holdings.

For private landowners interested in improving their properties for timber and wildlife, the Game Commission has produced two helpful publications: "Woodlands and Wildlife" (\$1) and "Timber Sales and Wildlife." These can be ordered from the agency, P.O. Box 1567, Harrisburg, PA 17105-1567.

Penn State offers "Woodland Wildlife Management," No. 6 in the state

cooperative extension service's Pennsylvania Woodlands series. This leaflet can be obtained from county extension offices.

The next step after reviewing these publications is to contact the Pennsylvania Forestry Association. These professionals have the training and experience to help forest owners realize the fullest return and enjoyment from their properties. They can also help a landowner make local contacts and implement a management plan. In addition, they offer "Woodland Owners Handbook," a comprehensive guide to all the basics a landowner should consider in implementing a sound forest management plan. This guide is available from the PFA, 410 E. Main St., Mechanicsburg, PA 17055, \$14.75 delivered.

By the Governor's proclamation, Pennsylvania's substantial forests and what they have to offer are being featured in 1986. Among the many benefits from our forests are the abundant wildlife resources they support. Forest management practices developed over the past 80 years benefit wildlife as well as the timber industry. High—often record-breaking—harvests of deer, bear, turkey and squirrels reflect the success of these practices. Public agencies and many major forest companies have incorporated wildlife considerations into their management plans, but a large percentage of private forest owners are neglecting their properties. Forest management is a long-term process. Owners interested in reaping full benefits from their properties will have no better time to investigate forest management options than in 1986, "The Year of the Forest."





THE TORRENTIAL rains of March 1936 are most remembered for the floods they caused in Pennsylvania. Equally devastating but largely forgotten now, fifty years later, is the carnage the ice storm caused in the northwest.

## *The Ice Storm of 1936*

**By Francis X. Sculley**

**Photos from the Author**

**T**HOUGH overshadowed by the great floods in the Susquehanna and Ohio valleys and the lower Allegheny, particularly in the Pittsburgh and Johnstown areas, the frightful ice storm of March 1936 was one of the state's worst disasters. It caused damage in the many hundreds of thousands of dollars, along with suffering and hardships for thousands, but it had little publicity even in the region of its occurrence, and is largely forgotten today.

The carnage it caused among northern Pennsylvania's deer herds was appalling, as was the toll of dead robins and other early spring arrivals. The storm occurred on March 16 and 17, 1936, and covered an area of several hundred square miles. While a similar storm occurred in 1982, it could not match the one of the Depression decade.

This is the way it was:

"Well, Rover boys, where do you think you're going?" The glare of the

Kane policeman's flashlight slid around the interior of the old Franklin touring car.

"We're going home to Bradford. We just got through playing basketball in the Kane Y. Why do you ask, officer?"

"You'll never make it. The road is a glare of ice. Mount Jewett, Lantz's Corners, Hazlehurst and Westline are cut off. Trees and utility poles are down everywhere. I can't tell you how many cars are off the road or how many travelers are stranded. Stay overnight and go home in the morning. It's only a buck per night in the local hotel."

We had four dollars among the entire team, so elected to risk the trip.

The Franklin inched up the slight hill out of Kane and onto Route 6, rear wheels spinning. Nearing the trestle on the edge of the village we came upon a pile of cinders, shining like it was coated with glass. Kicking and scraping, the gang finally gouged a hole in the pile. A handful at a time, we filled



**KANE, Mount Jewett, Hazlehurst and Westline suffered damage in excess of a million dollars. Schools were closed; milk and mail deliveries stopped. The carnage among wildlife was immeasurable.**

the floor ahead of the back seat to a depth of several inches. They were to prove a lifesaver.

Ahead of the idling automobile we could make out the forlorn figure of a deer attempting to cross the highway. Several times it fell, almost in spread-eagle fashion. The rain was now coming down in sheets, freezing upon impact. Tree limbs sagged almost to the ground under tons of ice. Two of the gang started over to push the deer off the road, but took headers instead. This inspired the animal to one last effort. It got to the cinder pile, where it stood for several moments.

### **Still the Rain Came Down**

It seems incredible that the old automobile made it to Lantz's Corners, and the turn to Bradford, but it did. Cars by the score were off the road. As the Franklin spun around a curve, its headlights glared off a number of deer that were just trying to remain erect. They were having a terrible time. And still the rain came down. And with it tree limbs and wires. The car arrived at the Lantz's Corner junction shortly after 2 a.m. It had taken us over five hours to drive eight and a half miles.

Again we were told by an ice-encrusted officer — this time a State Policeman — that only a lunatic would try to make the eighteen miles to Bradford, mostly all downhill.

"Don't do it. I wouldn't want my mother-in-law out on a night like this. Hazlehurst and Mount Jewett are cut off — no telephone or electricity. Trees, poles and wires are down everywhere. Even the deer are having a rough time. A dozen of them have wandered into Jewett, and I heard that a few slid over the gorge near Kushequa." The young officer, who reminded us of Longfellow's Skeleton in Armor, had been on duty since the storm first started.

With wipers resembling icicles, the beat-up old Franklin made it to Lewis Run just before daylight. Throughout the horrendous trek, all took turns spreading cinders ahead of the rear wheels. Since we had no shovel, it all had to be done by hand. Countless times the windshield had to be scraped. Once the car slid crossways across the highway. It was impossible to move in any direction. Using several of our basketball uniforms as a mat, plus generous amounts of cinders, the driver managed to get the vehicle around, so



that again it was headed in the direction of Bradford. Eventually the car crept into a filling station. There was a kerosene lantern on the cash register.

"You're the first people I've seen since yesterday," the attendant said. "Did you know they're afraid Laurel Run Dam at Johnstown is going out, and some of Pittsburgh is under water. They don't know about us up here. We have no power, no telephones or heat. Schools are closed, and there's no milk or mail deliveries. Before the phone went on the fritz last night, I heard that Hazlehurst, Mount Jewett and Westline were all cut off, and Kane was in deep trouble. Hey, you guys better get going — you've been up all night."

That evening we learned that western Pennsylvania was undergoing one of history's greatest floods. Kane, Mount Jewett, Hazlehurst and Westline had suffered damage in excess of a million dollars. Power and telephone lines were down everywhere. Every available workman had been recalled to duty, and more were being hired on a temporary basis. All of the mountaintop villages were out of milk and bread, and short of everything else.

It was weeks before the region's news-



**POWER and telephone lines were down everywhere. Every available workman had been recalled and more were hired on a temporary basis.**

papers learned of the frightful carnage among wildlife. Deer carcasses by the score were found along creekbanks and in the deep woods. Along one embankment, the remains of a dozen grouse were found by a party of fishermen. With the coming of warm days, the stench from the woods along present-day Route 219 was overpowering. Everywhere were signs of death. Many deer had slid over steep embankments to die on the rocks below.

The death toll on wildlife was enormous. Game Protector Carl Benson's office reported the storm as the worst-ever single disaster to affect the region's wildlife. Since many does were carrying fawns, it is not hard to understand the officer's reasoning.

The great flood of 1936 captured all of the headlines, and the great ice storm was quickly forgotten, but one of those who survived the disaster recalled: "It was unbelievable. There just has been nothing like it. The whole world seemed preserved in glass."

In the weeks following the storm, my family and friends frequently discussed the ordeal of March 16 and 17.

"We can't pass laws against tornadoes, windstorms or even ice storms. You just have to be prepared for emergencies like that."

Mother, the commentator, lived to be 90.



#### **Question**

May I use a 22 Hornet to hunt deer in Pennsylvania?

#### **Answer**

Yes. The Game Law permits the use of any centerfire ammunition for big game in Pennsylvania. Also, any rimfire ammunition larger than 25 caliber is legal for such hunting.

# *A Game Bag Full of Memories*

**W**HEN I WAS four or five years old my brother and I accompanied Dad into the deep woods where he slew a gigantic deer. He used an old taped-up double-barrel shotgun, and gave us the empty shells. I marveled at the red paper hull scorched black around the punched-out crimp, and could hardly stop smelling the pungent powder residue. I recall how much I envied my father for bagging the first gigantic live deer I can remember.

When I was a little older, I followed my oldest brother on his trapline "way off in the wilderness." The only thing I remember him catching was a blue jay, which for some reason got into his skunk set. We let the frightened bird go. I can't say whether or not it was badly injured. All I remember is that the poor thing seemed satisfied just to be set free, for it stopped its terrified squawking as it flew away.

I was born in the country, miles from any hospital or doctor. We lived in the hills of western Pennsylvania, almost a quarter-mile from our nearest neighbors, and those neighbors were our grandparents, an aunt and an uncle. Much of my early recreation revolved around nature and activities that the outdoors provided. One of my first vivid recollections is of a robin on her nest in a nearby peach tree. I was watching from the second floor window of my parents' bedroom, and it was raining hard. I was awed at the sight of this bird sitting so still, her wings spread like an umbrella to pro-

tect her fledglings. Large drops of rain burst into droplets on her feathers, then beaded up and rolled off her back and wings like lead shot rolls off the top of a table. I remember exploring the "stony batter," a forbidding stretch of adventure that seemed to lie at the very fringe of the earth, even though by grownup standards it was barely an acre in size and its center was at the most, 75 yards from our front stoop. The stony batter was just that, and if on rare occasions my brothers or I ventured into it without chasing out a rabbit or seeing a snake, we were as disappointed as a great white hunter returning empty-handed from safari. I also recall seeing from there the first jet trail I ever noticed, traced upon a deep blue cloudless sky. It was strange, ominous, even scary.

My father had little leisure time; however, he did delight in plinking with his Mossberg 22. And, to me, no man could shoot any better, or even hope to. How angered and hurt I was when one day he and my older brothers were shooting at empty cartridges they had placed on a fencepost. Finally, when my expressions of rejection and disappointment made my father feel badly enough, he allowed me to learn firsthand there was more to shooting than a 45-pound pipsqueak realized. One essential I learned was that you had to be able to hold the gun up to your shoulder before you could hope to shoot it in the general direction of the mark.

Fire claimed our house when I was

**By Bernard J. Schmader**





eight years old, and my family lost everything but the clothes on our backs. Later, Mom often mentioned her diamond engagement ring which she had kept in the china cabinet, and Dad never was able to replace his Model 99 Savage 30-30 deer rifle, his sleek little Mossberg, or the old double-barrel scattergun he had used to “do in” the first real deer in my life. We found the twisted and bent barrels of the Mossberg and the old shotgun, but we never found a trace of Dad’s Savage or Mom’s diamond ring. Lost also was the magnificent mounted deer head and fancy mirror that had hung above the fireplace and represented a milestone in

my father’s recollections, just as the loss of it represents a milestone in my own.

Of course, in later years the limits of my world of adventure expanded, but only to the distance to which I could walk and return. Most of these experiences involved the hunting of something: during fall, rabbits, grouse and deer; in winter, foxes; in spring and summer, crows, woodchucks and horned owls. When I wasn’t hunting these animals in reality, I was chasing moose, buffalo or bighorn sheep in fantasy. On my twelfth birthday a sense of ceremony surrounded the first time I shot a firearm other than a BB gun or a 22.



**ONE** of my first vivid recollections is a robin on her nest in a nearby peach tree. I was awed at the site of this bird sitting so still, her wings spread like an umbrella to protect her fledglings from a driving rain.

That gun was an Iver Johnson Champion, a single-barrel, 12-gauge, exposed hammer shotgun. Under the supervision of my oldest brother and the chiding of my youngest one, I cocked the hammer, took aim at an old cardboard box, and I believe slightly jerked the trigger. I hardly heard the report. I felt the jarring recoil and a numbing sensation of my cheek below my right eye. I don't remember whether I hit the box, but on the walk back to the house surrounded by the only people who mattered, I felt as though I had grown up just a little.

My first hunting license was purchased when I was thirteen, and that season provided an extra long chapter in the mental history of my life. I still was a skinflint, and although I imagined that I was a strong rugged outdoorsman—or should I say frontiersman—I couldn't stand the cold. On my first rabbit hunt in the company of my father and brothers, I never fired a shot at bird or beast, for my hands were so cold I couldn't cock my gun. Although I bagged no game during my

first days afield, I still have those memories now.

My first small-game season netted me one gray squirrel, shot with my granddad's shotgun as it scampered up Mike Good Hollow. My first rabbit was sloppily killed as it bounced out of some blackberry briars in front of my old spaniel Lover. As the rabbit dashed across a slagpile at what we called The Burkett in Clarion County, I rolled it with a load of 6s. But it wasn't killed cleanly and I had to finish the job with a sharp blow. That fact took away some of my self esteem, but the fact that I'd bagged a rabbit could not be denied. It also taught me to try harder to do it right in the future.

### Chance of a Lifetime

The first Saturday of my first deer season brought me the chance of a lifetime when an enormous 12-point buck appeared in an old field. I didn't get him, but he still lives in my memory. I was destined to collect my first buck three years later, within a stone's throw of the same spot. Dad and my oldest brother had each bagged a buck here, Dad on opening day and my brother on the second day of the season. After school I rushed to change clothes and headed for the stand. I had an hour before dark. It was a clear, cold, still afternoon. Just before five o'clock, I noticed movement against the snow-covered ground between the trees to my left. Slowly I raised my brother's rifle and peered through the sight. The deer was walking from left to right and it had antlers. The crosshairs found the animal's shoulder and I fired. The buck ran a small circle and collapsed in the snow. I wanted to yell like a Comanche, but held it in, mimicking a real adult. This time a clean quick kill and a little more personal expansion, if only the swelling of my chest as I saw my father's approval when he looked at my deer.

I've bagged other deer, but none which can compare with that first one. There are other deer memories, however, that do compare: the vivid picture

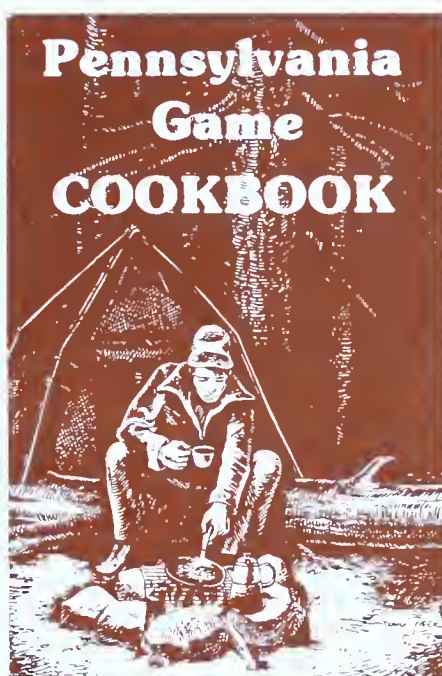


of my wife and the doe she brought home the first year she hunted. The proud yet sad smile of my oldest daughter Bridget, as she described how in the presence of her partner (her mother) she slew her first deer—a mammoth doe whose skull was cleaned and whose hide was tanned to index the event in their minds and to stir emotion and mystery in the minds of her yet unborn children.

Woodchucks became one of my favorite quarries as I entered adolescence, and my mind often relives those pleasant spring and summer hunting moments. I like to recall the time a least weasel emerged just inches from my foot as I sat lazily watching a freshly mowed hayfield. Or the time my uncle shot a 10-pounder at unusually long range with his 244 Remington. We were awestricken at the efficiency of the new cartridge.

I remember Hector, a young crow my brothers and I took from a nest high in an oak tree in the same woods that yielded my first buck. We wanted to use him to lure other crows into shotgun range. Hector did the job but we lacked skill, and it wasn't until years later that I finally dropped my first adult crow. I had tried everything—stalking, imitating their calls, baiting with garbage and papier-mache owls—in an attempt to outwit them. Then one spring day in my twentieth year I achieved my long sought goal. On my way to ambush a groundhog, I saw this crow sitting in the middle of a field near the farm on which my grandmother grew up. I drove on out of sight. Then, with all the skill, patience, and determination I could muster, I crept to within 150 yards and turned him into a pile of black feathers. I mentally classify that moment as three exclamation points in a row!!!

Military service exposed me to the grandeur of the Rocky Mountains, and I savored a brief taste of the substance my mind and countless adventure tales had imparted to that faraway wilderness. I saw it as full of exotic creatures such as grizzly bears and mountain



**Pennsylvania Game Cookbook** is a 96-page collection of delicious recipes submitted by **GAME NEWS** readers. It includes methods of preparing all kinds of game available in Pennsylvania, plus some recipes for moose, elk, and other species. \$4.00 delivered from **GAME NEWS** office.

lions, bighorn sheep and shaggy white goats. My western hunting netted me several passed-up chances at mediocre mule deer; a bobcat taken from a steep mountainside in northcentral New Mexico; a doe antelope taken late in the season thirty miles south of Saratoga, Wyoming; and a score of jackrabbits from the desert of Nevada. The Nevada desert brought me and my companions as close to demise as ever I've been, incidentally. The lesson learned was that you must carry water when you enter that dry, barren, but beautiful landscape.

Other thoughts re-occur. Of daughter Michelle and her contented look when, as a five-year-old, she sat patiently along Skippack Creek in Mont-



**THE WILD RESOURCE CONSERVATION ACT** of 1982 gives all Pennsylvanians an opportunity to actively support the protection and management of the state's wealth of natural resources. Modeled after the "income tax check off system" used successfully by 19 other states, Pennsylvania taxpayers may contribute all or a portion of their income tax refund to protect nongame wildlife and native plants. Much more can and needs to be done to protect our natural resources. So, when you're filling out your tax return, look for the owl and "Do Something Wise." And if an income tax refund is not due, contributions may still be made directly to the Wild Resource Conservation Fund, P.O. Box 2063, Harrisburg, PA 17120.

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gomery County, a fishing rod in her hand and great expectations in her eyes and likely in her mind as well. Of the wild gobbler I called in and bagged in the outreaches of Forest County, and the one that walked past me and my youngest daughter on the north side of Jacks Mountain in Union County some twenty years later.

We had heard a gobbler to the west of us, so concealed ourselves. Eleven-year-old Sheri, on her first unarmed excursion, hid in the rocks several feet behind me. I concealed myself in a depression and made several calls. The gobbler responded. At the ready, I saw a bird approaching. Although I couldn't

see a beard, which would have indicated a legal target, I anguished over whether Sheri had a clear view of the turkey. After the bird had come and gone, she asked why I didn't shoot the big gobbler that had stood only thirty feet away! She had been looking at him while I watched the hen.

"Oh, if only I'd had a gun," she said. "I could have had that gigantic turkey!"

She still talks of that experience which we of different generations share in both time and effect.

### Why Relive the Past?

Why is it that I find myself reliving things like the year I caught five foxes in two weeks and the time I shot a red fox in the middle of a hayfield just across the road from where my first rabbit fell? In my mind I can still see that first wood duck I dropped somewhere in Franklin County. I can still clearly hear the clamor of geese at Pymatuning where I bagged my first honker, and the tweetering erratic flight of that first woodcock—missed in a soggy willow thicket along Step Creek. I can't explain the pride that wells within me when I recall the double I scored on grouse near the spot where my father downed the last pheasant of his life. It was a spectacular shot within sight of our home on top of Furnace Hill, and it sent my admiration for him surging even higher.

Why all these haunting and enchanting memories? What purpose do they serve? Perhaps they are pleasant diversions that meld history to life and life to the future; perhaps such memories allow us to overlook faults and failings and give us the chance to redo what can never be redone. Or perhaps they are merely the measure of the man. Whatever thoughts of the past may be or whatever else they are supposed to accomplish, they are surely the essence of reminiscence. They provide the human species with a reservoir of experiences from which each of us can make some judgement about the relative importance of the people, places and things that make up the world around us.



The study phase of an important program is concluded . . .



# Hay Mowing & Pheasants

by Scott Fletcher and Fred E. Hartman

**F**IVE YEARS ago the Pennsylvania Game Commission launched a pilot program to do something positive for ring-necked pheasant populations. The “something” was a delayed hay mowing program designed to increase nesting success and reduce mortality of nesting hens. It did both.

In recent years, hunters and other naturalists have observed a marked decline in pheasant numbers in Pennsylvania. This decline has been influenced by adverse weather conditions in winter and spring, wholesale destruc-

tion of habitat, and major changes in agricultural operations. Some farming operations, including hay mowing, are detrimental to pheasants. Wildlife populations replenish their numbers by reproduction. The success or failure of reproduction determines the amount of replenishment. Hay mowing, because it normally occurs when many hens are nesting, can reduce the pheasants' reproductive efforts.

In an effort to quantify and better understand hay mowing's negative impact on pheasant production, the Game Commission began a delayed mowing project in 1981. Most of the work was done in Cumberland County; supplemental data were collected in Berks. A Farm Game Project in Cumberland County was selected as the main project area. Farmers here entered into agreements with the Commission to not

Scott Fletcher was employed by the Pennsylvania Game Commission on a temporary basis as a technician. Fred Hartman is a wildlife biologist and is project leader of the ring-necked pheasant and waterfowl programs.

mow hay fields until after June 20, or to not mow specific hay fields at all that year.

These landowners were reimbursed monetarily for their participation. During the first three years of the program, the Commission spent \$12,000 annually on reimbursement. During the course of this experiment both acreage and dollar amounts were increased, and another area was added to this program.

These monies allowed us to purchase delayed mowing rights on the following hay acreages in this project: 1981, 281 acres; 1982, 348 acres; 1983, 317 acres; 1984, 576 acres, and 1985, 566 acres. On the other area, these delayed mowing rights were purchased: 1984, 115 acres, and 1985, 161 acres.

Field searches for pheasant nests and winter cover counts have been the main sources of data for this investigation. The pilot study phase was conducted from 1981 through 1984. Similar acreages where mowing was delayed and control fields (those mowed on the typical early schedule) were searched for pheasant nests to allow comparison and evaluation. During these four years, 3555 acres (98 percent hay fields, 2 percent small grain fields) were searched, and 254 pheasant nests were found.

### **Delayed Hay Mowing Does Increase Pheasant Nesting Success**

Nesting success in hay fields not mowed before June 21 was 7½ times greater than that in regularly mowed hay fields. Over the four-year period, almost 51 percent of the pheasant nests in delay-mowed fields produced chicks. In contrast, nesting success in hay fields mowed on the normal early schedule was only 6.7 percent. While these figures are averages, there are some notable figures for specific years. For example, in 1981 in delay-mowed fields, nesting success was 57 percent. In 1984 in early mowed fields, there was no pheasant nesting success.

For the four-year study period, only 18.7 percent of the nesting hens in delay-mowed fields were killed. In control

fields, nesting mortality was more than twice as great. In these fields, 40.6 percent of the nesting hens were killed by mowing. The significance of nesting hen mortality was most apparent in 1984, when no hens were killed in delay-mowed fields, but in fields mowed on the regular time schedule, 75 percent of nesting hens were killed.

### **Additional Nesting Data**

Delayed hay mowing saves nests and nesting hens. Also, hens that nest successfully in a specific field tend to nest in that field in subsequent years. Thus, placing such a field in a delayed mowing schedule for a number of years could be important for pheasant production.

Pheasants show some preference for the size of hay fields in which they nest. Our data suggest the optimum field size for pheasant nesting is 10–13 acres. More than half of the fields in the 1–6 acre size did not have nests.

Preferred nesting cover is alfalfa or red clover mixed with a grass. These types of fields are best when the legume comprises at least half of the hay stand. Orchard grass is an acceptable choice when mixed with a legume as its substantial early growth provides the cover pheasants need. Except for brome grass, hay fields comprised of a single grass species are not good nesting cover. Whichever plant combination is used for nesting cover, it is important that the cover be dense.

The edge effect of nest placement was apparent in this study, but not as pronounced as in earlier studies (Hartman and Sheffer, 1971). In this investigation, approximately 25 percent of all nests were within 25 feet of the edge of a hay field, and 40 percent were within 35 feet. In the early study, 67 percent of the nests were within 35 feet of the edge.

Data collected in this program suggest that cold wet springs delay the nesting period. Such a weather situation, alone or coupled with hay mowing, can reduce reproduction and thus further prohibit populations from increasing.



Average clutch size (for clutches considered complete) during the four years was 9.3–11.9 eggs. This compares favorably with findings recorded periodically since 1939.

Brood data collected in this program suggest a smaller average brood size than previously reported. In fact, brood data collected periodically during the past 45 years indicate a decline in average brood size. This is an interesting and important observation. Is this decline real? If so, why has it occurred? What are the implications in relation to the overall pheasant population? In contrast, the average clutch size has remained the same.

### Pheasants for the Future

Results of the Game Commission's delayed mowing program have demonstrated that pheasant nesting success and nesting hen survival increase markedly when hay mowing is delayed until after June 20. A June 15 date is not late enough to increase nesting success. Often, the peak of pheasant nest hatching occurs around June 15. Thus, mowing on or about June 15 would cut right

into this hatching peak. Our data suggest that delaying hay mowing until after June 27 might increase pheasant nest success to 70–80 percent.

In Pennsylvania's primary pheasant range the increase in nest destruction by hay mowing since the late 1930s is quite noticeable. Periodic pheasant studies have shown that in every succeeding 10-year period there is 10–15 percent increase in nest destruction. This increased destruction rate probably reflects two things: increased speed and efficiency of mowing equipment, and a major change to hay species that require earlier mowing for best nutritive value from the crop. In addition, it appears fewer acres of winter grain and ideal cover (both types are safer for nesting) are available for pheasants to nest in. This lack of availability may cause more hens to select hay fields for nesting.

The effects of weather upon pheasant nesting were noted in this study. Cold wet springs delayed pheasant nesting and might well be a causative agent for reduced reproduction and low populations.

**FIELD searches for pheasant nests and winter cover counts have been the main sources of data for this investigation. In four years, 3555 acres were searched, and 254 pheasant nests were found.**



It is estimated that only 12 percent of the hay fields in this area, at maximum, were in the delayed mowing program. This probably is not enough to cause an increase in a pheasant population. Current data suggest at least 25 percent of the hay fields in an area must have their mowing delayed to bring about an increase in the pheasant population.

From this study it can be theorized that 1200 acres of delay-mowed hay fields could produce 200 chicks, whereas this area, if mowed early, would produce only 32 chicks—a difference of 168 birds.

### **Guidelines for a Delayed Mowing Program**

Implementation of a delayed mowing program is no small matter. A large land base of delay-mowed hay fields in primary pheasant range is required if pheasants are to benefit significantly. Specific guidelines include the following considerations: delay-mowed fields should be concentrated, not scattered indiscriminately over a large area; there should be a minimum of 20 fields in an area; at least 25 percent of the hay fields should be in the delayed mowing program; hay fields should be in the vicinity of pheasant winter concentration sites; hay fields with pheasant nests should be retained in a delayed mowing program; likewise, those fields not having pheasant nests 2–3 years in a row should be taken out of the program. Also, for a hay field to be in a delayed mowing program, it should meet these criteria: be 7–13 acres in size; be a mixture of alfalfa or red clover; legumes should comprise at least 50 percent of the stand; hay growth should be dense; should be of good quality hay (no weed fields); and the field should not be next to buildings. The edge effect of nest location should be considered when only a portion of a field can be utilized.

Other crop types that should be considered for pheasant nesting cover are

winter grain (wheat and barley) and pasture. Winter grain is beneficial to pheasants. Although it has less nest density than hay, it is a very safe nesting cover.

Pheasants nest in quality pastures. Pasture renovation/management is valuable for pheasant nesting cover. Pastures should have a good growth of legumes and grasses, be relatively weed free, be limed and fertilized to promote good vegetative growth, and not be grazed until after June 15.

To adequately provide good habitat for pheasant nesting, this delayed mowing program must be expanded considerably. Such an ambitious undertaking takes lots of money—more than is currently available. Perhaps a pheasant or habitat stamp would be in order to pay farmers/landowners to delay mowing hay fields and improve pastures and/or provide winter cover.

It is undeniable that as time goes on it will cost more to maintain our different species of wildlife and their required habitats. The sooner we face up to this fact, the better.

Many persons have contributed time, effort, and labor to this program. To note the contributions of each would require another article. So we are just listing those who helped and offering a big "Thank you" to each: Ed Diehl, Jacob Sitlinger, Dale Sheffer, John Byerly, John Doebling, Rochelle Fisher, Linda Anderson, Carol Falco, Tom Barney, Steve Opet, Barbara Rosensteel, wildlife technicians, biologists, and district game protectors in Cumberland and Berks counties. And especially to all the farmers who cooperated in this program.

Photos by Rochelle Fisher

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# Walkers and Foxes

By Dave Wayman

**P**ERHAPS I like fox hunting because it's a big, all-day hunt like deer hunting. Unlike rabbit, pheasant, or other small-game hunts, where you're in control and hunt where you want to, fox hunting is controlled by the fox, and you and the dogs go, or try to go, where he does.

In the morning when you cut them loose, neither you nor the dogs know where you're going to end up at nightfall. That's the challenge. If you prefer a sport that's never dull and always different, you'll like fox hunting with dogs.

Generally, a group of us hound men meet at George DiGiacomo's house at daybreak, where we decide over coffee where we're going to hunt that day. George has hunted fox with dogs most of his adult life. As far as he's concerned, there isn't a better way to spend a day in the woods. He has several good Walkers and a couple of pups that should make good dogs in the future.

The woods in our area are bounded by fairly well traveled roads which "block off" the woods in sections one to two miles on a side. Usually a fox will circle around and around within one of these blocks, but occasionally you hit one that will cross a block and go into the next one. That is dangerous because a hound with his nose on the track doesn't usually stop to look both ways for traffic. Over the years, fox have caused the deaths of a lot of good dogs by crossing highways.

Once we've arrived at the block we intend to hunt, the best strike dogs are put down and turned loose. The question of who has the best strike dog is often hotly debated. Although the fraternity of fox hunters is a close one, a

hunter's first loyalty is to his dogs. After a few insults and face-saving rejoinders, everyone relaxes and listens for the dogs to strike a track.

Most of the guys I hunt with use Walker dogs. The Walker is specifically bred for fox hunting. The breed dates back to the mid-1800s when a Kentuckian, Colonel C. J. Walker, and his two sons, W. S. and E. H., wanted to produce a dog that could catch and kill a fox or deer. In those days, some hunters didn't use guns for sport, it was all up to the dogs.

## Light and Able To Run

The dog Colonel Walker had in mind would have to be light and able to run; it would have to have a hot nose because a cold-nosed hound would never push a deer or fox if he fooled around with the track too long; perhaps most important of all, the dog would have to be a sticker. Running down a deer or red fox takes a lot of heart. Mr. Walker produced just such a hound through a curious mix of breeding.

The American hounds he used as a basis for his new breed had good noses and heavy mouths, but they were more suited to running bear or coon than deer or fox. He crossed these hounds with a phenomenal black and tan hound named Tennessee Lead; this gave his line superior striking and casting capabilities. The result was a better foxhound—but Colonel Walker wanted the best.

He sent to England for some English foxhounds and crossed them with his American stock. He got a shorter-eared, lighter-built hot-nosed dog that was much faster than its predecessors.

After Colonel Walker passed away,

his sons tried to further improve the strain. They used English, and eventually Scottish, hounds to attain the gameness, grit and tenacity that Walkers are famous for.

However, by the turn of the century it was decided that Walker hounds had too much English in them, and the size of the hound was larger than ideal for the brushy forests of North America. To compensate, the Walker brothers bred more heavily into the American side of the strain again. Today, the Walker is almost universally considered the best running hound in this country.

When you put a good foxhound down, you don't have to lead him to the woods or brush you want to hunt. He seems to know instinctively where you want to go and what he's looking for, and he makes a beeline for it. That makes it easy on the hunters, because they can wait by the truck until the dogs get a fox up. If ours don't hit one after an hour or so, we call them back in, go somewhere else, and repeat the procedure.

Our dogs bark a little on a cold track, but there is no mistaking the barking after the fox is up and running and the track is hot. That's when we turn the rest of the pack loose.

### **Determine Direction**

After the dogs are all in the woods we try to determine which direction the chase is going. The whole point of the hunt is to be in front of the dogs, so they are driving the fox toward you. Sometimes we enter the woods at that point. Other times, depending upon geography and direction, we cut across to a different side of the block.

A fox hunt is fluid. It changes direction many times during the course of a chase. Hunters constantly move back and forth across the block to position themselves in front of the dogs, in hopes of getting a shot.

Nothing surpasses the thrill of standing in a fairly open area with a good view when the pack is headed in your direction. You stand by a tree or

bush to break your outline. Your muscles tense as your gaze rakes the area in front of you, waiting to catch the first glimpse of motion that means something is coming. The howling and bawling of hounds on a hot track makes the back of your neck prickle with anticipation as you search the snowy landscape for the dark speck that moves.

Then you see him. Judging by the sound, he must be about 500 yards in front of the dogs, but he is only about 100 yards away from you, walking with that quick pace and those short steps—the fox trot—that never seems to tire him. Your pulse quickens as he gets closer. His color begins to show up: bright red, almost crimson looking against the white background. He's all furred out, a beautiful winter red, and the fur makes him look twice as big as he actually is.

You figure out where he'll be when he's in range and turn ever so slowly in that direction for a good shot. Like most of your friends, you use No. 4 shot in either a 12 or 16 gauge shotgun. Experience has shown that larger shot does not increase the effective killing range and smaller shot reduces it. The only thing that seems to make a difference is magnum loads as opposed to regular express loads. The magnums seem to give the No. 4 shot greater penetration, which does increase the effective range a little.

As the fox goes behind a big beech tree, I snap my gun up and safety off in one smooth motion. I hold near the side of the tree and wait for him to step out, sighting down the long blue barrel. Three seconds. Eight seconds. Where is he? My left eye hurts from squinting. Thirteen seconds. I lower the gun and look around, studying the entire scene for any movement, any clue. Thirty seconds. I relax and put the safety back on.

He's gone and here come the hounds, making more noise than a hurricane. They get to the beech tree and momentarily lose the track. They swing to the right and beyond the tree,





**JACK ACORD and George DiGiacomo turn the strike dogs loose just after sunup. Then, above, the gang waits until the dogs get a fox up before releasing the rest of the pack.**



**THE tenacity of Walkers makes it difficult to call them in at the end of the hunt. Below, Jack and George pose with Lemon and a nice red she helped chase down.**

**FOX hunting is particularly exciting because at the beginning of the day hunters have no idea where the chase might lead them. Below, Jack, Arnold Landis, Bennett Hudson and George gather up the dogs and call it a day.**



out of my line of vision in a fox-grape thicket, they pick it up again. I have been out-foxed. He evidently saw me pull up and turned away from me, keeping the beech between us. I had been careful, but with a red fox you can't be too careful. They see everything, and what they can't see, they sense.

They're downright clever, too. On one occasion, a farmer was spreading manure on a field. The fox was cutting across the lower end of it, the hounds well behind him, when he turned into the swath of fresh manure and ran right up through the middle of it. When he was nearly to the manure spreader, he turned and finished crossing the field. Needless to say, with their smellers full of manure odor, the dogs lost the track.

### Run Till Tired

A fox will run until he is tired, trying all the while to use some trick that will shake the dogs off his track. Failing that, he will hole up. Then the hunt is over. Generally, a gray fox will not run more than an hour or two before he holes. A red, on the other hand, is likely to run four to six hours before holing. Sometimes one of either species will surprise you, either by running all day or by not running at all. In fox hunting a lot of variables affect the length of the chase—weather, age and fitness of the fox, its sex, and even how good the dogs are. If they push him hard and fast, he'll hole quicker than if he has a little time to play with them.

There's an old saying amongst fox hunters that you spend half the day hunting fox, the other half hunting dogs. It's true, and it's the one annoying aspect of fox hunting. We've just learned to put up with it.

After the fox holes or is shot, some dogs will stay around the hole, some will come in to the hunters, some try to find another track, and others . . . nobody knows where they go.

We always try calling them, and drive around the block hoping to hear

or see them, but sometimes it's hard to get them in. That Walker trait of tenacity, of sticking to the track, was bred into these dogs to make a superior foxhound, but it sure doesn't help when you want to catch them and go home.

Usually, though, we have them all by nightfall. If any are missing, we put a dog box on the ground where we went into the block initially. Most of the time, the missing hounds are sleeping inside of it when we come back later to check.

Waiting for the dogs gives the hunters a chance to stand around and rehash the hunt and figure out (argue about) whose dog it was that led the chase and why the fox did what it did. This session is almost as important to the foxhunter as the hunt itself, because it gives him a chance to talk about his dogs with men who know and appreciate what they can do. That's what the hunt finally boils down to: each man's dogs. The dogs are the athletes in this game, and a hunter comes to know and appreciate everything his dog does right on the hunt. He takes every bit as much pride in what his dog does as a jockey would in his mount in an important horse race.

Most of the guys I hunt with couldn't care less about killing the fox. Sure it's nice to get a few dollars from the pelt to help cover expenses, but the bottom line is the hunt itself, the sound of the pack, the speed of the chase, and the performance of those wonderful Walkers.

We argue and kid a lot, but at the end of the day when everyone says so long, and Arnold and Dave Landis and Tom Hogan and Jack Aeord and George DiGiacomo and I go our separate ways, everyone knows he'll be at George's house the next week, ready for another day of it.

Foxhunting gets in your blood, and you develop a love of dogs that is perhaps as strong as the love a farmer has for his land. And when it's that bad, you know you're hooked.



Tundra Swans . . .

# BIRDS OF ORPHEUS

By Rhume Streeter

TOWARD THE end of March, the protected coves and pockets of Chesapeake Bay come alive with regrouping multitudes of huge white noisy birds. *Cygnus columbianus*, the tundra swan, is assembling for its long flight to the breeding grounds, up beyond the Arctic Circle. The tundra swan until recently was known as the whistling swan. These birds are magnificent specimens of beauty and symmetrical grace.

Forming into straggly flocks, the fidgety swans spend the day preening and constantly calling. Finally they face into the wind and with powerful sweeps of their wings and a running patter over the water, they are airborne. Rising swiftly, they vee up and head northward. Following the Susquehanna River, they cross Pennsylvania and head west. They will skirt the Great Lakes and over North Dakota again veer toward the Arctic. Their goal is the tundra regions of Alaska, the Yukon Territory or the Northwest Territories, more than 4,000 miles from their starting point.

Tundra swans are powerful flyers. Even with a body weight of 20 pounds in a mature bird, they can attain speeds of 55 miles per hour and maintain that pace for a long time. The flight profile of a tundra swan shows a completely outstretched neck, tipped



by a solid black bill; black legs are held tightly against the body and extend to just under the tail. The wingbeat is rhythmical, slow and unfaltering.

Back around the turn of the century, tundra swans were common along the entire Atlantic Flyway. Market hunters and indiscriminate shooting by awe struck waterfowlers riddled their flocks in the early 1900s to a point where they became rare sightings through the '30s. Then came a gradual increase, and by the '60s respectable numbers were noted on the Eastern Shore. Today a rapid increase in tundra swans is being noted all along the Atlantic coastline.

The past few years have seen a great number of tundra swans stopping over in Pennsylvania during the spring migrations. Late February and March of 1984 saw approximately 35,000 tundra swans stopping over for several days to

a few weeks on lakes or ponds, or along the Susquehanna River in south-central Pennsylvania.

Tundra swans are normally underwater feeders. They stay close to the shoreline and, with their long necks, probe deep beneath the surface to feed on the succulent roots of aquatic plants. Along the lakes, ponds and rivers of eastern Pennsylvania, this type of forage is in short supply. Flocks of swans then seek out the tender young shoots of wheat, oats or rye that local farmers sowed the fall before. Though swans are extremely clumsy on land, their voracious appetites force them to feed on shore.

If the ground is frozen, the grain crops are snapped off cleanly. Come spring, with the tremendous amounts of droppings the swans have left, these plants will revive. But if spring sunshine has thawed the field surfaces, the young and shallow-rooted plants are torn completely out with the roots and eaten. This can wipe out an entire crop of winter grains.

The warming suns of March rekindle the swans' urge to move on. Agitation in the stopover flocks is reflected in their actions and calls. *Whow-whow-whows* reverberate from one end of the flock to the other. The big birds seem to be synchronizing their flight meters and planning every mile of their long flight.

One morning they are gone.

### Desolate Tundra

Swans begin to arrive at the desolate tundra nesting areas about the first of May. They select nest sites in low-lying boggy sections and immediately begin to construct mounds of vegetation for nests. Utter isolation, the meager animal population, and the depth of the light fluffy snow which makes travel just about impossible give the swans total protection during the incubation period.

As soon as the nest has been completed the egg laying process begins. The female, called the pen, will produce 2-7 eggs, one every other day.

Average clutch is 5. Their gestation period is 35 to 42 days. The male, or cob, does not participate in the hatching. The young, called cygnets, are covered with soft whitish down and leave the nest in less than one day.

When the young have dried, both parents whisk them off to nearby lakes, ponds or sloughs created by melting snows. Closely protected, the cygnets feed on bits of vegetation broken up by the parents, or gorge on hordes of insects that swarm from the water's surface. By the end of September, broods from spring hatchings have taken on the characteristics of their parents. Only slightly smaller than the adults, they are tinged generously with slate-gray hues. They will take on the snowy tints in their third year. With daily trial flights and an energy-rich diet, the young birds prepare for their first southerly migration.

Tundra swans from Arctic breeding grounds along the Bering Sea in Western Alaska will travel to winter headquarters in Southern California. Some will move directly down the coast, while others will head inland and cross British Columbia, Montana and Idaho, into the large marshy areas of Utah's Great Salt Lake. After a prolonged stopover at the lake, this group will head westward over the mountains and across Nevada to rejoin the other migrants in Southern California.

Predation on tundra swans is negligible. Alaskan natives of the tundra regions are permitted to take a regulated number of swans for subsistence. These birds are captured and killed while they are flightless during the moulting period. Moulting is completed about the time the young are being born.

Hunting for these big birds is allowed in three Western states, by permit only. Montana issues 500 one-bird permits annually. They are drawn by lottery. Success rate is about 20 percent.

Nevada also issues 500 permits and has about 1000 applicants for these.





Annual Nevada kills, where swans have been hunted since 1969, have ranged from 84 to 214.

Utah harbors the most wintering swans in the states where hunting is permitted. Between 40,000 and 50,000 swans can be on the Great Salt Lake at one time. Tundra swan flocks are constantly moving, so 100,000 birds could pass through Utah in one winter's flights.

Utah has allowed swan hunting since 1962, and issues 2500 permits via a lottery each year. Between 8,000 and 9,000 persons apply. Hunter success is around 25 per cent in the season which runs concurrently with those for ducks and geese.

Albert F. Regenthal, a waterfowl program coordinator from Utah, commented on swan hunting: "Swans have proven to be far more elusive and difficult to hunt than would at first be thought. Their speed is deceptive and their large size adds to an illusion of slowness and close range. First-time swan hunters are often extremely frustrated by day's end."

Swans from the breeding grounds in the Yukon and Northwest Territories migrate to their wintering areas along the Chesapeake Bay or south along the

Atlantic coastline. The number stopping over in Pennsylvania in the fall is far fewer than in spring. It's rare indeed to see more than a few stray families throughout the entire fall and winter. A November 1984 census revealed only 1200 swans along the lower Susquehanna River.

Whatever the number, try to enjoy the swans next spring. Great observation areas have been on the Lower Susquehanna from York Haven Dam to Holtwood Dam. Muddy Run Lake, Middle Creek Lake and Speedwell Forge Lake in Lancaster County, Blue Marsh Dam and Ontelaunee Reservoir in Berks County, and the Chester-Octoraro Reservoir in Chester County are noted swan watching areas. The Susquehanna River from Clarks Ferry to Three Mile Island also gets periodic migrating flocks.

This spring if you're lucky enough to be at an area where the tundra swans have gathered, pause and reflect. Note their regal behavior on the water, watch their dignified flights and listen to their melodious calls. You will soon agree that naming the birds after the mythological Greek god of music was appropriate. They are indeed "Birds of Orpheus."

# North A Hunter Ed C



**THE SHOTGUN** shooting event, above, simulates shooting situations encountered in the field. Rifle shooting, below, includes long, medium and short range targets.

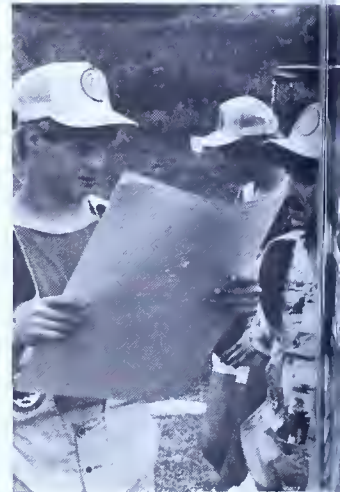


**FOR THE archery** event contestants get 60 shots at life-size deer targets at ranges from 10 to 35 yards.



**T**HE PENNSYLVANIA Game Commission selects sportsmen to represent our state at the National Hunter Education Association Championship. The National Association of Hunter Safety Coordinators met last year to further promote outdoor education. The competition is open to students who have graduated from a hunter education course in high school. Students 12 to 14 may compete in the Junior Division. Students 15 to 17 may compete in the Senior Division.

Students compete individually and as a team in rifle, shotgun, and bow and arrow shooting skills, hunting ethics, and hunter responsibilities.



**THE BRADFORD County** won the 1985 Championship, sponsored by county organizations and local businesses.

At last year's championship, held in Maryland, a Bradford County team consisting of Brian Cavanaugh, Gillett; and Kenneth Tofts, all from Troy, placed fourth in the outdoor skills event and first in the written exam.

A state championship to select Pennsylvania's best hunter education instructors, sportsmen's groups, schools, and clubs will be held at the Temple Country Club, Dallas, PA, on September 15-16. Students must be 12 years of age or older to form a team and participate.

For further information contact the Pennsylvania Game Commission, P.O. Box 18612, Dallas, PA 18612, Attn: Ed Sherlin.



# American Championship

Commission is looking for a group of young people for the 1986 North American Hunter Education Association and the North American Association initiated this championship program to test their knowledge and skills.

from 12 to 19 years of age who have completed hunter education and have not yet graduated from high school in the Junior Division; older students in the Senior Division.

person teams. Events test rifle, shotgun, wildlife identification, outdoor knowledge, and target shooting.



**CONTESTANTS** are asked to identify wildlife specimens and answer objective questions in the hunter responsibility and wildlife identification events.



above, that did so well at the championship, coached by DGP Bill Bower and other youth group leaders, civic organizations.



**A BLACK** powder session, right, was among the leisure activities offered contestants during the 4-day championship in 1985.



Emington Farms, near Chestertown, Maryland; John Angove, Columbia Crossroads; and Timothy Schoonover and Randy Smith, who won the overall competition and received second place in the hunter responsibility test.

The championship will be held at the Iremonger Farm, May 31, 1986. Hunter education and civic organizations are encouraged to participate.

Pennsylvania Game Commission, Box 220, Harrisburg, Pa. 17105.



# FIELD NOTES



## Treed

Kenneth Johnson, Orwigsburg, got more than he bargained for while hiking last fall on SGL 106, Berks County. About 5 p.m. he came around a sharp bend amid large overhanging boulders and found himself within reach of a sleeping black bear. He tried to slowly retreat, but the bear woke up and began to follow him. While Ken walked, the bear walked; when he stopped, so did the bear. During one of these stop-and-go maneuvers, Ken tripped, struck a rock, and was knocked unconscious. When he awoke, the bear was still there. Concluding the bear was more curious



than hostile, Ken decided to climb a tree and wait the bruin out. Little did Ken know he would be spending the night in that tree. At one point he fell asleep, tumbled to the ground and cracked a rib in the process. At daylight the bear was still near the tree, but when Ken awoke again at 9 it was gone. He hurried out to where searchers from Hawk Mountain were already looking for him. I doubt that Ken will ever forget the night he spent treed by a bear in, of all places, Berks County.—LMO Stephen L. Opet, Tamaqua.

## Pitchin' In

**CAMERON COUNTY**—I recently received a gift membership in the Foundation for North American Wild Sheep, and became impressed when I learned of the ways they spend their funds. For example, they purchased radio telemetry gear and donated it to western wildlife agencies, and they support a variety of scientific studies and trap-and-transfer projects. Then I got to thinking of all the folks right here in Pennsylvania who contribute to wildlife conservation. Two organizations that never seem to receive the credit they deserve are the Western Pennsylvania Conservancy, for their assistance in land acquisition, and the Richard King Mellon Foundation, for supporting our Bald Eagle Recovery Program. Perhaps that's not as glamorous as working with Dall sheep, but their efforts deserve a hearty thank you from all Pennsylvania outdoorsmen.—DGP Joe Carlos, Driftwood.

## Proper Ingredients

**ADAMS COUNTY**—Friends of mine, Dick and Kathy Shealer, Wenksville, love to hunt, especially rabbits. Therefore, they have let briars and brush grow up on much of their property. So much so the neighbors say it looks like a jungle. On opening day of the past small game season, Dick's 81-year-old grandfather, Pappy Wirth, took a position somewhat protected from the wind, and waited. He was rewarded with a rabbit and a pheasant, and had another rabbit run right over his boot on its way to safety under a woodpile. This small farm may look like a jungle, but believe me they get plenty of action when it comes to small game hunting. Habitat is the answer.—DGP Gary Becker, Aspers.



## A Big First

**WESTMORELAND COUNTY**—I bought my son Brian a compound bow before archery season. He practiced every moment he had and became rather proficient. When archery season came, Brian was in the mountains near SGL 42 with high hopes of getting his first deer with a bow. But Saturday came and went without a deer. Monday, Tuesday, and Wednesday were spent at the Loyalhanna Flood Control Lands and the Derry Ridge, but again without success. I got home Thursday evening with just enough time to eat before leaving for a meeting, and my wife told me Brian was hunting on the back edge of our four acres. As I was about to leave I heard Brian in the kitchen excitedly telling his mother that we had to come see his deer. We all rushed out and found Brian's first deer with a bow. As I later told the sportsmen at the Penn Rod and Gun Club, the real joys of hunting are watching a youngster work hard, learn a new skill and use it. I'm still not sure who was happiest that night—Brian or me.—DGP B. K. Moore, Saltsburg.

## Slipups

**TRAINING SCHOOL**—We found a dead cub behind a cornfield, but couldn't immediately determine the cause of death. Further investigation revealed, however, that the bear had lost its grip on a huge hemlock tree and fallen about 40 feet and fractured its skull on a rock. Even bears slip up—and/or down—once in awhile!—Trainee Steven M. Spangler.

## Prepared Message

**SNYDER COUNTY**—Deputies Willow and Wenzel stopped two individuals for spotlighting at 2:30 a.m. Before either deputy could say anything, one of the passengers blurted out, "We didn't know you couldn't spotlight after midnight!"—DGP John Roller, Beavertown.



## Up-to-Date

**TRAINING SCHOOL**—As many folks are aware, game protectors have answering machines to record calls when we are not available. All too often, though, callers don't leave a message. Many feel intimidated by a recording or just don't like talking to a machine. But this was not the case in one recent instance. Upon returning to the office I began taking messages off the recorder. After listening to six hangups in a row, I came to three rather exuberant messages from one gentleman. This fellow felt so at ease talking to a machine he called back three times to complete his one-sided conversation. —Trainee Clifford E. Guindon, Jr.

## From the Pits

**MONTGOMERY COUNTY**—Deputies Derril Allspach, Albert Altomare and Norman Gearhart stared down a 20-foot drop at a hopelessly trapped deer. They contacted the Barren Hill Fire Company Rescue Team. Soon an A-frame ladder was placed over the well, with a block and tackle attached. One rescue team member was lowered into the well. He placed a safety belt around the deer, which had been tranquilized by Deputy Altomare. After raising the sleeping deer, the crew watched it regain consciousness and bound off into the woods.—DGP William Wasserman, Montgomeryville.

## Good Job

**ADAMS COUNTY**—Those of you who saw us stocking pheasants last fall were probably quite impressed, as I was, with the quality of the birds from the agency's game farms. The birds were beautiful and should have delighted all of those fortunate enough to bag one.—DGP Larry Haynes, Gettysburg.

## Advice From Above

**TRAINING SCHOOL**—Baiting incidents have been reduced in Tioga County, thanks to the fine efforts of the Pennsylvania State Police and the use of their helicopter. In two hours aboard the helicopter, we were able to locate a half-dozen places where bait had been placed to attract game. Those who think they can place bait in a remote area where no officer can find it had better think some more.—Trainee John Denchak.



## One of the Good Times

**FULTON COUNTY**—I had a student officer assigned to me, and it was great. When the phone rang, he answered it. When reports were due, he did them. And when people got nasty, I referred them to him. It's too bad he had to leave so soon. Karen says I became almost human again.—DGP Mark Crowder, McConnellsburg.

## Natural

**ERIE COUNTY**—Deputy Jim Luschni was surprised at a couple's reaction to a film he was showing at the Siegel Marsh Visitor Center. The film was about Pennsylvania's snakes, and one segment showed a black snake capturing and eating a mouse. The woman and her husband obviously were uncomfortable and they left the auditorium at that point. Perhaps we need a rating system for our films, warning people that they might witness the actual behavior of wild animals.—DGP Andy Martin, Erie.

## No Vacancy

Paul Howe, Avis, has been an avid builder of bluebird houses since reading LMO Dick Belding's article in the January '84 *GAME NEWS*. He collects materials from lumberyards, sawmills and interested persons. He donates bluebird houses to many, including the Northcentral Regional Office, for distribution. Last spring we gave Farm Game cooperators nine of these bluebird houses, along with instructions. This past fall, Farm Game manager Scott Laird checked and found that eight of the nine had been used by bluebirds and one by a wren.—LMO Ken Zinn, Jersey Shore.

## By Example

**JEFFERSON COUNTY**—It's been said that anyone contemplating a business partnership should take the prospective partner hunting. I think that's sound advice. In what other endeavor are ethics and self-discipline most evident? The lessons children learn from parents while hunting are a basis for good citizenship later in life. Parents, when your children are grown, what principles learned in hunting will they be able to draw on? Will they have been taught honesty, integrity, and self-discipline, or will you have taught them to cheat, lie, and do it the easy way because "no one will find out"?—DGP Don Garner, Punxsutawney.



## Good Night

**TRAINING SCHOOL**—On the first day of antlered deer season, DGP Mel Schake and I picked up and disposed of roadkilled deer, checked six deer unfit for consumption and issued permits to kill a second deer, handled three mistaken kills, filled out numerous deer kill reports, worked on five reports of antlerless deer being taken illegally, settled violations, investigated two hunting accidents, and answered countless questions and complaints over the phone. My final task for the day was to type this Field Note.—Trainee T. M. Grenoble.

## Secure Future

**TRAINING SCHOOL**—Boy Scout Troop 37, Philadelphia, held its Eagle Scout Court of Honor on the only weekend I had off during our ten weeks of field training, just so I could attend. At the ceremony, Scouts Keith Effinger, Dave Foster, Chris Lee, Kevin Lee, and Jeff Ulmer received their Eagle Scout awards. These five new Eagles bring to 53 the total number bestowed during the Troop's 53 years of existence. In Boy Scout Troop 37, the eagle is not an endangered species.—Trainee Richard J. Shire.

## Bitter Struggles

**UNION COUNTY**—Tim Catherman, Millmont, was enjoying the solitude on the north side of Jack's Mountain when he heard a rustling in the leaves only a few feet away. A very small mammal, a shrew, was making its way along the forest floor. Tim also noticed a large spider only a short distance from the shrew. As Tim looked on, the shrew and spider met. The two critters struggled with each other for what seemed like a long time, but was actually less than a minute. The shrew laboriously won and was last seen dragging his prey away.—DGP Bernie Schmader, Millmont.

## Two Sports

**TRAINING SCHOOL**—An individual killed two bucks in Clinton County on the opening day of bear season. Thanks to the concern of two sportsmen, who gave up nearly half of their hunting time that day to report the incident, the violator was apprehended and prosecuted. Many thanks to these fine sportsmen.—Trainee Robert L. Prall.



## Gnawed

**McKEAN COUNTY**—Some people watch too much TV. A man recently told me he knew where some beavers were because he'd found where they had sawed down some trees. McCulloch strikes again.—DGP Guy Waldman, Lewis Run.

## Let Me Tell You

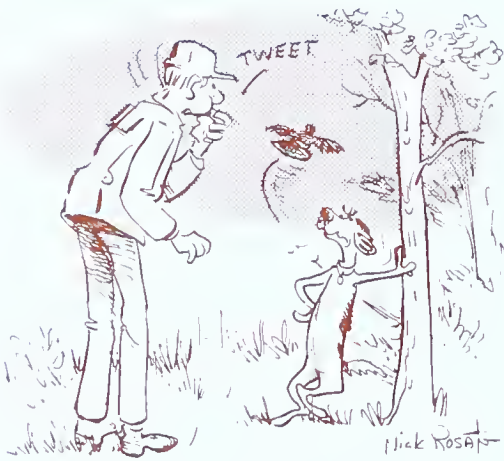
**BRADFORD COUNTY**—At a National Hunting and Fishing Day banquet, the Game Commission honored Elmer Scott of Troy for being a sportsman's sportsman through the years. Elmer's brother Mark had to persuade him to come to the banquet—Elmer's a little on the shy side. I had to promise I wouldn't make Elmer give a speech upon receiving his award. But Elmer proved he was really a true sportsman when he got up to receive the award. He started telling hunting stories.—DGP William A. Bower, Troy.

## Fantastic Journey

**DAUPHIN COUNTY**—One day last fall we opened to the public a 17-mile stretch of road through Stony Valley on SGL 211. This 40,000-acre Game Lands tract constitutes the heart of one of the largest undeveloped areas in the state. Turnout for this biannual event was overwhelming. Some 600 cars carried about 2000 people, making the tour a 34,000-mile adventure.—DGP Scott R. Bills, Millersburg.

## Simple Explanation

**TRAINING SCHOOL**—While on field assignment I received a phone call from a man who had a raccoon in his garage. When I asked how it had got in, he replied, "Through the door." I said that if the animal was doing no damage he should just ignore it and it would leave the way it had entered. "Oh, no," said the caller. "It can't. It tried to, but I hurried up and closed the door."—Trainee Arthur S. Hamley.



## Let's Get With It, Mac

A few days before the opening of pheasant season I decided to take my young English setters to SGL 96, Venango County, for a training session. They put up not only two hen pheasants but also three grouse. Although grouse were in season, I was armed with only a whistle. And after all this great bird work, the dogs looked at me as if to ask, "Are you just window shopping today?"—IES Bob MacWilliams, Sandy Lake.

## Right Here, Dad

**LEBANON COUNTY**—A local archer called to ask if he could continue tracking a wounded deer after dark. I told him there would be no problems so long as he didn't carry his bow. As he and one of his youngsters followed the trail, the lad asked his dad if he wanted his arrow. Dad replied, "Sure, as soon as we find the deer." At that, the boy reached down and picked up the arrow and handed it to a rather quiet father. And just a bit farther down the trail, the boy pointed out the dead deer.—DGP G. W. Smith, Lebanon.

## Get 'Em Next Time

**WAYNE COUNTY**—While patrolling with trainee Aiken, we noticed a hawk we couldn't identify. It was on the ground at the edge of a cornfield. When we stopped the vehicle the bird hopped to the side, and we identified it as a broad-winged hawk. Some unusual bluish plumage which had confused us belonged to a pigeon the hawk had trapped. The pigeon beat a hasty retreat toward a nearby silo with the hawk in close pursuit.—DGP Donald R. Schauer, Honesdale.

## Great Idea

**SOMERSET COUNTY**—Several months ago I was asked to do a program at the Maple City Nursing Home in Meyersdale. I was at a loss for a subject, but after some thought came up with the following. To begin the program I showed "The Last Stronghold of the Eagle," an outstanding film with spectacular photography. Then, since residents of a nursing home are unlikely to see large birds such as eagles from their windows, I gave them a bird feeder I'd built. The group enjoyed the eagle movie and seemed quite enthusiastic with the feeder and the prospects of watching some smaller birds during the winter.—DGP John Smith, Salisbury.



# 1986 Waterfowl Stamp and Print

A WATERCOLOR painting featuring a pair of blue-winged teal, created by Alabama artist Robert C. Knutson, is featured on Pennsylvania's 1986 waterfowl management stamp and fine art print. The winning design was selected from 109 entries from 26 states.

The agency's first-ever waterfowl management stamp design contest was held during the Pymatuning Waterfowl Expo at Linesville, Crawford County. Serving as contest judges were Sylvia Bashline, Outdoor Writers Association of America executive director; Frank Felbaum, Pennsylvania Wild Resource Conservation Fund executive director; George Kelly, Ducks Unlimited regional director for western Pennsylvania; John Plowman, Game Commission legislative liaison; and Pennsylvania wildlife artist John Sidelinger.

Revenues from the sale of Pennsylvania "duck stamps," and royalties from the sale of duck stamp prints, have been used to purchase nearly 700 acres of prime wetlands in McKean and Mercer counties. About \$350,000 has been raised through the program since its inception in 1983.

Knutson, 72, a retired commercial artist from Lillian, Alabama, was not involved in wildlife artwork until after his retirement. He says winning the 1986 Pennsylvania competition was "the thrill of a lifetime."

The 1986 duck stamp, shown on the inside back cover, is now available at \$5.50 each. Numbered plate blocks of four stamps are \$22; numbered full sheets of ten



CARL GRAYBILL, Assistant Director of Information and Education, and the judges, George Kelly, John Sidelinger, Sylvia Bashline, Frank Felbaum and John Plowman, pose with Robert C. Knutson's winning painting.

stamps are \$55. The full sheet price drops to \$40 if five or more sheets are purchased. Stamps of earlier years are available at the same prices, except for the 1983 "first of state" issue. All of those unsold as of December 31, 1985, were shredded.

A collector-quality print of the 1986 waterfowl stamp art will be available shortly from participating art dealers and galleries throughout the state. Image size is 6½ x 9 inches, overall size 12 x 14, printed on acid-free rag paper. Price, \$135 plus tax and shipping, plus \$5.50 for mint stamp.

Waterfowl stamp and print funds have also been used by the Game Commission in connection with a matching fund contribution from Ducks Unlimited under the organization's MARSH (Matching Aid to Restore States Habitat) program to buy an aquatic weed and channel cutting machine used to enhance waterfowl habitat in vegetation-choked swamps and marshes in northwestern Pennsylvania. Pennsylvania's allocation represented the first MARSH fund monies distributed by Ducks Unlimited to a state agency for habitat improvement. The new machine, dubbed a "cookie cutter," is opening hundreds of acres of previously non-accessible swamps and marshes, restoring habitat at record rates, hundreds of times faster than with hand tools.



## Clemens Takes Seat on Game Commission

A Montgomery County businessman and community leader has been appointed by Governor Thornburgh to represent nine southeastern counties on the Pennsylvania Game Commission. He is Clair "Butch" Clemens of Hatfield, an officer and executive vice president of the Hatfield Packing Company.

A longtime hunter and sportsman, Clemens is president of the Three Spring Run Hunting and Fishing Club, vice president of the Bonnel Run Fish and Game Club, and a member of the Morris Rod and Gun Club.

He serves as Chief of the Towamencin Volunteer Fire Department and was recently named Distinguished Servant by the North Penn Chamber of Commerce. Commissioner Clemens is also a member of the Pennsylvania Meat Packing Association, the Keystone State Fire Chiefs Association, and the Century Club of the Boy Scouts of America.

Commissioner Clemens holds the



Clair "Butch" Clemens

seat vacated by the late Edwin J. Brooks of Lansdale. He represents sportsmen in Berks, Bucks, Chester, Delaware, Lehigh, Montgomery, Northampton, Philadelphia and Schuylkill counties.

Commissioner Clemens is married to the former Arlayne Gottshall. They are parents of four children and have six grandchildren.

## Trophy Scoring Program

Ever wonder just how big your trophy deer rack really is, or how your bear skull compares with others? In April, the Pennsylvania Game Commission will be conducting our ninth deer and bear measuring program to give interested sportsmen answers to these questions.

Scoring sessions will be held at each of the Commission's six region offices. Trophies will be measured according to Boone and Crockett scoring systems. Sessions will be held on Saturday, April 5, from 10 a.m. to 4 p.m. at the Northcentral Region office, one mile south of Jersey Shore on Route 44; the Northeast office, at the intersection of Routes 118 and 415, between Dallas and Harveys Lake; the Southwest office, 339 W. Main St., Ligonier; and at the Southeast office, along Lauer Rd., off Route 222, five miles north of Reading. Sessions will be held on Sunday, April 6, from 10 a.m. to 4 p.m., at the Northwest office, 1509 Pittsburgh Rd., about two miles south of Franklin; and at the Southcentral office, one mile west of Huntingdon on Route 22.

All racks and **clean** bear skulls will be measured, providing they have not been measured previously and that they have not been repaired or tampered with. For complete rules, see page 2 of the December '85 GAME NEWS.



# 1986 Middle Creek Wildlife Lectures

Another series of wildlife lectures will be put on at the Middle Creek Wildlife Management Area Visitors Center near Kleinfeltersville. These will be one to one and one-half hour programs with appropriate visual aids, followed by question-and-answer periods. There is no admittance charge. Each lecture will begin at 7:30 p.m. on the following dates, with the subjects and speakers as listed below:

April 2, 3—*Springtime Wild Turkeys*, Arnold Hayden, Wildlife Biologist, Pa. Game Commission; April 16, 17—*Outdoor Photography*, Tom Fegely, Host of WGAL TV's "Call of the Outdoors"; May 7, 8—*Natural History and the Outdoorsman*, Bryon Shissler, Wildlife Biologist and Director of "Wildlife Managers"; May 21, 22—*Rabies: Mid-Atlantic Outbreak*, Dr. Bobby Jones, Epidemiologist, Pa. Dept. of Health; June 4, 5—*Field*

*Work and the Outdoor Artist*, Ken Hunter, Wildlife Artist; June 18, 19—*Pennsylvania's Black Bear*, Gary Alt, Wildlife Biologist, Pa. Game Commission; July 2, 3—*Wild Flowers in Pennsylvania*, Tim Flanigan, District Game Protector, Pa. Game Commission; July 16, 17—*Wild Foraging*, Kermit Henning, Educator and Outdoor Writer; Aug. 6, 7—*Outdoor Survival Skills*, Carl Graybill Jr., Asst. Director, Bureau of Information and Education, Pa. Game Commission; Aug. 20, 21—*How Man Affects Bird Populations Through Development and Feeding*, Dr. Aelred Geis, Urban Wildlife Specialist, U.S. Fish and Wildlife Service; Sept. 3, 4—*Waterfowl and Ducks Unlimited*, Dave Dohner, DU Regional Director for Central Pennsylvania; Sept. 17, 18—*Managing Private Woodlands for Wildlife*, Jerry Hasinger, Wildlife Biologist, Pa. Game Commission.



**THREE HUNTER EDUCATION** summer camps are being offered by the Game Commission. Each session lasts 3½ days. Two will be offered at Bear Creek Camp, near Wilkes-Barre, on June 21-24, and on June 25-28. The third will be held July 12-15 at the Natural Science Solar Center, Milford. Students will receive advanced instruction in shooting, hunting techniques, ethics, wildlife identification, and more. The \$45 fee will cover meals, lodging, and all materials. Enrollment is limited, so don't delay. Registration forms and information available from the Pennsylvania Game Commission, Northeast Region Office, P.O. Box 220, Dallas, PA 18612, Attn. Ed Sherlinski.

# young artists page

Gray Squirrel  
Kevin O'Brien  
Allentown, PA  
Notre Dame of Bethlehem  
High School  
8th Grade



Fledgling Hawk  
Elizabeth Reed  
Coudersport, PA  
Coudersport High School  
12th Grade



# Game Commission Publications & Items

Quantity	Books	Price
_____	BIRDS OF PENNSYLVANIA, by James & Lillian Wakeley	\$ 10.00
_____	THE WINGLESS CROW, by Charles Fergus	\$ 10.00
_____	MAMMALS OF PENNSYLVANIA, by J. Kenneth Douth, et al	\$ 4.00
_____	GONE FOR THE DAY, by Ned Smith	\$ 4.00
_____	PENNSYLVANIA WILD GAME COOKBOOK	\$ 4.00
_____	DUCKS AT A DISTANCE	\$ 2.00
_____	WOODLANDS AND WILDLIFE	\$ 2.00
_____	PENNSYLVANIA TRAPPING MANUAL, by Paul Failor	\$ 3.00

## Working Together for Wildlife Collectibles

_____	1986 KESTREL PATCH	\$ 3.00
_____	1986 KESTREL DECAL	\$ 1.00
_____	1985 BOBCAT PATCH	\$ 3.00
_____	1985 BOBCAT DECAL	\$ 1.00
_____	1984 BLUEBIRD PATCH	\$ 3.00
_____	1984 BLUEBIRD DECAL	\$ 1.00
_____	1983 OTTER DECAL	\$ 1.00
_____	1982 OSPREY DECAL	\$ 1.00
_____	1981 FLYING SQUIRREL PATCH	\$ 3.00
_____	1981 FLYING SQUIRREL DECAL	\$ 1.00

## Wildlife Management Areas

_____	PYMATUNING WATERFOWL PATCH	\$ 2.00
_____	PYMATUNING WATERFOWL DECAL	\$ 1.00
_____	MIDDLE CREEK WATERFOWL PATCH	\$ 2.00
_____	MIDDLE CREEK WATERFOWL DECAL	\$ 1.00

## Pennsylvania Bird and Mammal Charts

_____	Set 1 (4 charts) 20" x 30"	\$ 4.00
_____	Set 2 (4 charts) 20" x 30"	\$ 4.00
_____	Set 3 (8 charts) 11" x 14"	\$ 4.00
_____	GAME NEWS Cover Prints (4 by Ned Smith) 11" x 14"	\$ 4.00
_____	State Symbols Chart 20" x 30" (Deer, Grouse, Hemlock, Laurel)	\$ 2.00

## SPORT Items

_____	Bronze SPORT Tie-Tac/Lapel Pin	\$ 3.50
_____	SPORT License Plate	\$ 4.00
_____	SPORT Patch	\$ 1.00

## GAME NEWS

_____	GAME NEWS Binder (Holds 12 Issues)	\$ 5.00
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## Waterfowl Management Stamps (Voluntary)

_____	1985 Waterfowl Management Duck Stamp	\$ 5.50
_____	1984 Waterfowl Management Duck Stamp	\$ 5.50

Mail orders along with remittance to Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567. Checks should be made payable to Pennsylvania Game Commission.

DO NOT SEND CASH

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## ...Before a Fall

IT'S NO great news that human nature is an odd mixture. And it stands to reason that in hunting, as in other endeavors, every part of our personality is bound to show from time to time. Sometimes when the same trait comes out in different people, like two south poles of a magnet placed too close, the result is a clash, not an attraction. But in an afterthought, the encounter often seems funny. As when two people display the same stubborn pride, for instance.

A small game hunt isn't a logical place to expect that particular vice to show. This hunt was simply to be an enjoyable time gunning in the company of a good friend of ours, Gene, and his father. Gene's dad had arranged for the outing, on farmland which he had permission to hunt. As his guest and as the only female hunter present, I felt I should display exemplary behavior. If that included not only safe and courteous actions in the field, but also showing off my prowess with the scattergun, that was all right with me. I was just past the novice stage, but not into the wisdom enough, to figure I could hold my own in any part of the hunting game. And if I excelled in any way that day, that would just be icing.

### Introduced

My husband and I met Gene's dad at the farmhouse a little after dawn and were introduced. I'd hunted with Gene many times before and had been told that his dad, or at least one of his relatives, regularly hunted with a woman. I thought the older man wouldn't be uncomfortable about having me and my gun around. We started out along a hedgerow, then swung into brushy, thornapple-studded woods, walking four abreast. I soon noticed that Gene's dad was always in a position next to me, but didn't think anything of it.

Though it was a perfect small game day, quiet, cold and overcast, I don't think there was anything memorable

about the shots or harvest. At least I can't remember them. What I do recall is walking . . . and walking . . . and walking. Across one field, over a stone-wall and into another, and another. Down one wooded ravine, up the other side, and into the next. Across steep sidehills, plowing through thigh-high brush and tripping over "wait-a-bit" briars in the openings. We didn't even stop for lunch, because we'd expected to be back at the house by early afternoon. Gene was a big man and strong walker, and he and my husband Bob, who loves to find out what's in the next bit of cover, were having a great day.

At mid-afternoon, we paused on a wooded knoll because Gene had hit a rabbit that had dived into a brushpile and he was tearing it apart little by little in his frustration at trying to recover the cottontail. In the last hour or so, I'd noticed a strange pulling and tightening in my knees. Not a sharp pain, but a feeling that all was not well within. As I rested, I could feel them stiffen and begin to ache.

"How far are we from the house?" I whispered to Bob, so the others wouldn't hear.

"About a mile or so, why?"

"Because I don't think I can make it back. My knees hurt. I think I walked too far."

"Why didn't you say something before?" he asked. "I'd have told Gene and his dad to slow down."

I just shook my head. "Don't tell

## Another View...

by Linda Steiner



them I can't keep up. I'd be too embarrassed."

Bob said okay, but he looked at me a little strangely.

I did make it back to the farmhouse, somehow. I was never so glad to see the end of a day's hunt. We were all invited inside for coffee and cake and the conversation flowed long. I settled into an easy chair, knowing the longer they talked, the stiffer and more painful my knees would become. I wanted nothing else than to go home to a hot bath and Ben-Gay.

### Time To Go

At last it was time to go. Bob and Gene got up and I rose and tried to stand. Involuntarily, I let out a moan, as I limped for the door.

"What's the matter?" Gene asked.

"I overdid it," I finally confessed. "I pushed myself too hard walking all day today. I just didn't want to admit I couldn't keep up and my legs are killing me now."

"You, too, huh," Gene's dad chimed in from the corner. I noticed then that he hadn't stood up, like the others, to see us to the door. "I'm so worn out, I don't think I can stand," he complained. "I thought I was the only one who was beat. You all looked like you were in great shape out there."

"Yeah, but tell them the rest, Pop," Gene added. Then he turned to me. "Dad told me that today was the first time he'd ever hunted with a woman. (I learned later it was Gene's father-in-law who often hunted with a female relative.) Dad was worried about what you'd be like and was afraid you'd outdo him. He said he might be getting old, but no woman was going to outwalk him. I guess that's why he walked us so relentlessly today . . . pride."

We all laughed and I told Gene's dad that I could have saved us both a lot of anxiety and discomfort if I'd known his feelings, because I was just as worried about not being able to keep up as he.



**HUNTING** should not be considered a form of competition. The camaraderie that develops among those who share time enjoying the outdoors is the ultimate reason families and friends take to the fields and forests with guns in hand.

So we were equally to blame, it turned out, for all the aspirins and heating pads used in the following weeks. Even today, some years later, whenever I push myself too far, hike long and hard, the pain comes back in my legs and I find myself hobbling by the time the hunt is over. But I guess I've learned something through it all — that we must accept our limitations as well as be proud of our abilities, to really be honest with ourselves. I suppose Gene's father feels similarly. I've heard he still limps, too.



# The Year of the Forest

## Forests and Wildlife

Think of the forest and you think also of the animals that live there. Whitetails, black bears and wild turkeys are probably the first to come to mind. But woodpeckers, flying squirrels and porcupines are there, too, along with scores of other critters, large and small, that make the forest their home.

At times, forest animals seem to be arranged in some random, helter-skelter pattern. It seems difficult, if not impossible, to predict just where in the forest any particular kind of animal will be. Yet, experienced woodsmen know that game animals, at least, tend to congregate in certain areas where food and cover plants are the best.

As a matter of fact, woodlands have a definite structure that provides at least four levels of habitats for wildlife. The woodland plants are responsible for this structure and they, in turn, are only responding to a mixture of physical conditions such as light, temperature and soil conditions that cause them to grow in familiar patterns.

## Forest Layers

In the hardwood forests across Pennsylvania, the highest level is the treetop *canopy* that blankets the woods below. This layer receives the most sunlight and is responsible for producing the bulk of the food in the forest system. It is the warmest of the forest layers and often has the lowest humidity.

The canopy is formed by the crowns of the tallest trees in the woodland—oak, hickory and tulip poplar in many parts of

the state, maple and beech in others. In places, the canopy merges into a continuous cover that casts deep shade on the plants below; in other areas, the canopy is open where crowns have not quite merged so that shafts of sunlight can sneak through.

Beneath the canopy are smaller trees such as dogwood, hornbeam and striped maple. This is the *understory*. It is composed of trees that will never reach the height of those in the canopy. It also contains young canopy species that one day will replace older, towering trees of their own kind.

Understory trees are more tolerant of forest shade. They fill in the space around trunks of larger trees and provide nesting, resting and feeding areas for many wild species.

The *shrub* layer varies within the forest, depending on moisture, light and soil conditions. Blueberries, rhododendron and laurel are a few of the plants that build this layer.

The *herb* layer also varies from place to place but consists of grasses, wildflowers, ferns and other herbaceous plants. The ground itself could be considered a part of this level or a separate layer of its own consisting of leaf litter and vegetation of many kinds in various stages of decay.

This lowest layer is the most energy-rich layer of them all. While most food is produced in the canopy, most of that food ends up on the forest floor as leaves,



branches and fruit drop, carrying their stored food with them. In one study, researchers estimated that, on average, 75 percent of the food energy produced in a forest ecosystem falls to the forest floor. It's not surprising, then, to find so many kinds of animals feeding, and living, in a close relationship with this lowest woodland layer.

Animals spread throughout these levels to occupy niches that reduce competition between similar kinds. For example, almost all species of warblers feed on insects, but they might feed at different heights. Some are more characteristic of the canopy, others of the understory.

Insects also show this kind of separation. Three related types of beetles, in one study, were shown to attack forest trees at different heights—one near the base, another at the upper trunk, and a third in the small branches in the canopy.

### Who Lives Where?

Canopy wildlife includes scarlet tanagers, Blackburnian warblers, wood pewees and flying squirrels. Most of these species are difficult to see as they move through the dense treetops.

More commonly seen species spend much of their time in the understory and shrub layers. The tufted titmouse, chickadee, and wood thrush are familiar understory birds. These shorter trees also host squirrels, porcupines, and an occasional opossum. Woodpeckers, brown creepers and nuthatches search the trunks of larger trees in this zone for meals of small insects and spiders.

The woodland floor is the hotbed of animal activity. It is the primary prowling ground for most mammals, snakes, toads, loads of spineless critters, and a surprising number of birds. Towhees, ovenbirds, chipmunks, deer mice and shrews all spend the bulk of their time on, or in, the woodland floor.

Deer and bear, turkey and grouse depend on the shrub layer for major portions



of their food. They also search the ground layer for fallen mast or small creatures that thrive in the energy-rich leaf litter.

So the forest is more than a bunch of trees. There is really some structure to it. Large trees grow as they do because of certain physical conditions. Those large trees modify the light, temperature and humidity beneath their crowns and thus influence the shrubs and small trees that grow there. And all plants influence the wildlife.

There is no random, helter-skelter distribution at all. Rather, there is an orderly arrangement designed to reduce competition and provide the best available chance at survival.

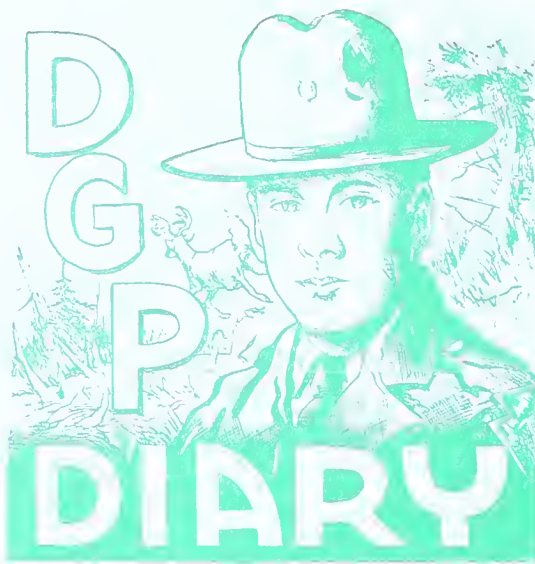
All this makes it much easier to understand the ecologist who said, "You cannot do just one thing." Open the canopy, and you let the shrubs and understory flourish to support certain animals at the expense of other species. Allow the canopy to grow old and dense and it will close off the sunlight so that understory species suffer. The former can produce more grouse; the latter more scarlet tanagers. Which species is more important?

Obviously, both are important, and there is a balance that provides for both. Maintaining that balance may be the most enduring sign of wisdom in man's struggle to be both consumer and steward of our natural resources.

## Thoughts While Walking

*What is this life if, full of care,  
We have no time to stand and stare?*

—William Henry Davies



## By Keith Sanford

District Game Protector  
Chester County

**M**ARCH is the beginning of my favorite time of the year—spring. Cold nights are transformed into cool sunny days that hint of the warmth to come, skunk cabbage heads begin to poke up in the marshlands, and redwing blackbirds start to appear en masse.

My job still involves a good deal of law enforcement, but at this time of the year it is mixed with just the right amount of public relations work. It's a period when things aren't quite so hectic and a conservation officer can devote his full attention to each problem as it arises.

*March 1*—I received a call from Lowell Bittner, Law Enforcement Supervisor out of our Reading office, informing me that Game Protector Dennis Dusza, Lycoming County, had cannon-netted several wild turkeys. Two of the birds, both adult hens, were slated for release in my district. I spent the entire day making the long but enjoyable trip up to the Northcentral Regional Office in Jersey Shore to pick up the birds.

*March 2*—Since it was 9 o'clock when I returned home last night, I waited until this morning to release the two hens. I wanted to give them several hours of daylight to orient themselves to their new environment. When I opened the crates, the big birds scrambled into the sky and then set their wings for a long glide to the near-

est hardwood ridge. Now, it's just a matter of hoping they join up with the jakes I released several days ago at the same site.

*March 4*—I started the day returning phone calls and completing paperwork. During the midmorning hours, I picked up a pair of roadkilled deer in the West Chester and Coatesville areas.

At noon I met with an individual from the Jennersville area who had found a gunshot great horned owl. I took the bird to Nils and Pat Sanborn of West Chester, who both hold state and federal wildlife rehabilitation permits. Although they did their best, a serious infection had already set in and the raptor died within a few days.

It angers me to think that we still have people who maintain "the only good hawk is a dead hawk." The birds of prey are among the most beautiful and intelligent species of wildlife we have, and they are all integral parts of the outdoor world. They deserve a better fate than a load of number 6 shot.

*March 6*—I stayed at home in the morning to prepare a wildlife program I will be giving tomorrow evening in Kennett Square.

Later, I met with a beaver trapper in Pocopson. He had taken a beaver in Potter County and, to comply with the law, had to have the pelt tagged before he could sell it or within ten days after the close of the season.

In the afternoon I met with a representative from PennDOT to discuss the high numbers of deer being hit on Route 52 in the Mendenhall area. In an attempt to reduce the road kills, it was suggested that deer crossing signs be erected along the highway at strategic locations. Since it is currently the Game Commission's responsibility to pick up roadkills, PennDOT sought my advice as to the best location to place the signs. We all hope they'll work.

*March 7*—In Pennsylvania all motor vehicles are required by law to undergo a yearly safety inspection. State-owned vehicles are not exempt from this requirement. Today I spent the morning in West Chester having my Game Commission vehicle inspected and some minor repairs made.

In the evening I attended a banquet at the Lions Club in Kennett Square. After



dinner I gave a brief presentation on Pennsylvania's endangered wildlife and then showed a film on endangered species.

*March 8*—I found myself on the road again this morning, this time heading west to Somerset. Game Protector Dan Jenkins had trapped several more turkeys and I was to receive six juvenile hens for my release site in Chester County. Several birds from the same flock were sent to Idaho as part of a wildlife swap with that state's Department of Fish and Game. In exchange for 16 eastern wild turkeys, Idaho will be sending us 200 wild trapped Hungarian (gray) partridges.

I've gunned for huns on several occasions; when I was in the service and stationed at Mountain Home Air Force Base in southwestern Idaho and again when I was a student at the University of Idaho. The Hungarian partridge is not only a sporting game bird but also has the ability to thrive in areas of intensive agricultural activity. The birds we'll receive from Idaho will be released in northeastern and southcentral Pennsylvania. The long-range goal is to establish viable populations in all areas of suitable habitat by trapping and transferring them from the original release sites, much the same as we've done with the wild turkey.

*March 10*—During the week I had received a call from an individual in the Marshalton area concerning a neighbor he had seen with a freshly killed deer. I had been to the suspect's home on several occasions, but had been unsuccessful in finding him home. Being a Sunday, I felt I had a good chance this morning. Luck was finally with me. The individual admitted to having the deer. It was a roadkill he had picked up the previous weekend. He thought that because the incident had been reported to the police no further steps had to be taken to retain the animal. Township police in the area where he had picked up the deer confirmed his story so I issued him a written warning for possessing the animal without a permit.

*March 11*—I received a call this morning from Deputy Cary Haupt about a local trapper who had accidentally caught a female river otter in one of his beaver sets. The animal had drowned and the trapper turned it in as an accidental kill.

River otters have been showing up

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## GAME NEWS

For a Friend . . .

rather frequently in southern Chester, Lancaster, and York counties. Most likely, these are animals moving north from the Chesapeake Bay region of Maryland.

In the afternoon I again met with Penn-DOT, this time on a highway killed deer problem on Strasburg Road near the Embreeville State Police Barracks. In the evening, I gave a program on wildlife law enforcement to a local Explorer Post in Coatesville.

*March 12*—Spent the morning returning phone calls, keeping abreast of the never ending flow of paperwork, and disposing of more roadkilled deer in and around Coatesville and West Chester.

In the evening I traveled to Quarryville, Lancaster County, where I met with Game Protector Ed Gosnell, Deputy Steve Hess and Maryland Conservation Officer Dave Hohman. As I mentioned before, Steve had pieced together a fairly complex case involving individuals from Chester and Lancaster counties and Cecil County, Maryland. Our suspects in Maryland had used Pennsylvania addresses to purchase resident hunting licenses. Furthermore, several deer had been taken on those licenses. The purpose of our meeting tonight was to update those who would be involved in the final part of the investigation.

*March 14*—An annual training conference is held in each Game Commission region to keep all field officers abreast of changes in wildlife law enforcement, land management, and public relations. These ensure that each salaried officer is well acquainted with Commission programs and policies. The Southeast Region held its conference today and I spent the entire day at our office in Reading.

*March 18*—Met with Game Protector Gary Smith today at the Middle Creek Wildlife Management Area. Gary had used the slide program on the agency's

proposed hunting license increase the evening before and I needed it for tonight. In the evening, I attended the Chester County Federation of Sportsmen's Clubs' bimonthly meeting and presented the slide program to those in attendance.

*March 19*—In the morning, I met with a trapper in Cochranville and tagged three beaver pelts he had taken. During the 1985 season, 11 flattails were taken in my district. This isn't many when compared to our northern tier areas, but almost a record high for southern Chester County.

In the afternoon, I made a run to Amity Hall to pick up the last wild turkey which will be put out in our release site. The mature gobbler brings to twelve the number released at that one location. Whether or not the birds will survive and multiply is now up to mother nature.

*March 20*—In the morning, met with Game Protectors Ed Gosnell and John Shutter and Maryland Conservation Officer Dave Hohman in Conowingo, Maryland. In the evening we will be visiting the individuals in our license violation case, and we wanted to meet one final time before making contact with our suspects.

At precisely 6 o'clock four teams, comprised of eight conservation officers contacted seven suspects in Maryland and Pennsylvania. The information Deputy Hess had gathered was good, and as a result we were able to collect close to \$1000 in fines. Violations included untagged deer, illegal hunting licenses, transporting and possessing deer unlawfully taken, and attempts to take second deer. All in all, it was a real victory for the sportsmen in Pennsylvania.

*March 22*—In the morning I investigated a deer damage complaint in West Fallowfield Township. Later in the day, I walked the area where I had stocked the wild turkeys. Fresh scratchings and droppings indicated the birds were adapting to their new home.

In the evening, Deputy Pete Aiken and I met with Maryland C.O. Dave Hohman. A Maryland resident had picked up a road-killed deer in Pennsylvania and taken it home with her. Game Commission policy permits only Pennsylvania residents to retain roadkills. The venison was confiscated and given to a needy family.

*March 25*—Spent the bulk of the day in

my office. In the evening I attended a Boy Scout banquet in Oxford and gave a program on wildlife.

*March 26*—As with any other occupation, there are days when things go your way and days when they don't. Today was one of the good ones for me. I was at the State Police barracks in Avondale when a call came in regarding a domestic dispute in the Landenberg area. When the dispatcher gave the name to the responding trooper, I just about launched myself through the ceiling. It was the same person Deputy Aiken and I had been trying to serve with an arrest warrant. Because the defendant was a nonresident, from Delaware, he was taken immediately before District Justice Eugene DiFilippo in Kennett Square. Including court costs, he was fined close to \$500 for three counts: hunting without a nonresident license, hunting with a rifle in a special regulations area, and giving false information to obtain an antlerless deer license. As a result of these violations, the defendant also had his hunting and trapping privileges in Pennsylvania revoked for three years.

*March 27*—In the morning I distributed posters for our annual Planting for Wildlife Seedling Sale. Later in the day, I presented a program to a Cub Scout Den in Unionville.

*March 28*—I was traveling toward West Chester, where I was to attend the annual banquet of the Shadyside Farmers' Sportsmen's Conservation League, when I realized I had forgotten an award I was scheduled to present. When I walked into my office to retrieve the plaque, I noticed a call had come in during the few minutes I'd been gone. A Mortonville woman had seen a pair of dogs chase and pull down a deer. Dressed in a three-piece suit for my banquet commitment, I was hardly prepared to respond to such a call. I contacted Deputy Jim Valentino, gave him what information I had, and asked him to initiate the investigation. Later in the evening, while I was still at the dinner, Jim stopped by to fill me in on his findings. From what our witness had observed, it sounds as if we have a good case. She knows the dogs' owner and is willing to testify at a hearing if necessary. If more people were willing to get that involved, we might be able to significantly reduce this unnecessary slaughter.



SOUND FILLED the March night, a sound like creek-bottom stones clattering, or the quacking of ducks. A quarter moon was on its way down. Wind whistled in the bare branches. A shooting star streaked across the sky and burned out in the moon's faint glow.

I was drawn to the quacking. The land sloped down. The leaves were wet from days of rain, and mud sucked at my boots. I crept to the edge of Oak Pond, where the sound flooded my ears.

It came from all over the pond. It came in waves—strengthening, receding, strengthening again. The waves dissolved into cacophony, scores of sound-points that bombarded the surrounding land.

I flicked on my light. The quacking stopped. All across the pond's surface, paired eyes reflected the flashlight's glare. The eyes blazed in shadowy heads that ducked, or turned, or remained immobile in the water. A tentative *quack* sounded from across the pond. I shut off the light, sat down on a stump, and waited. The chorus began again.

The first chorus at Oak Pond belongs to the wood frogs. Last spring, the singing began in early April; this year it was the fourth week in March. It is the same with frogs as it is with birds: The males sing to attract females for breeding, and the sounds are distinctive from species to species.

As I listened, a new voice joined the chorus. This call, shriller than that of the wood frog, was a two-note affair, the second tone slightly higher than the first. The new singer kept on calling, the sound thin and piercing above the wood frog undertone. Others of his kind joined in, and soon the peeping dominated the quacking.

The peeping came from the shallows. I switched on the flashlight and played the beam over the brown grass near my feet. After a few moments, I spotted a frog clinging between two stems of grass, his rump barely touching the water. He was an inch long, tan, his body traversed with dark brown streaks, two of which met in a wavy X in the center of his back. The frog was a spring

# Thornapples



Chuck Fergus

peeper. He took a gulp of air, clamped his mouth shut and sealed his nostrils, and inflated a pearly vocal sac beneath his chin. He called by shuttling the air back and forth between the vocal sac and his lungs, vibrating chords in the floor of his mouth.

I shut off the light and was engulfed by sound. After a while, I noticed a third voice trying to insert itself between the quacks and the peeps. This new sound resembled a thumbnail rasped across the small teeth of a good stiff pocket comb—sort of a *trreep* or *crreek*, rising in speed and pitch toward the end. The calling came from an island of jumbled grass in the center of the pond. I didn't bother with the flashlight, because the island was a good twelve feet away and I already knew who was making the noise: a chorus frog, a brown-and-gray creature about the size of a spring peeper.

I sat and rode the waves of sound. Sometimes the voices would dwindle; then a gust of wind would come moaning through the trees, and the singing would spring back to life. The wood frogs and the chorus frogs called determinedly, and over their voices rose the stridence of the peepers.

This is the way it sounds every spring at Oak Pond. In March the place reverberates with the calling of frogs fresh out of hibernation. Then, on misty

Thirty-three of Chuck Fergus's "Thorn-apples" columns have been collected into a 188-page hardcover book called *The Wingless Crow*. Reviewing it, *The Christian Science Monitor* said: "Charles Fergus is a watcher, a listener. . . . That he thinks of nature as a gift, and that he wants us to share his enthusiasm, is communicated on every page . . . [Fergus] possesses a child's sense of wonder, an adult's ability to assemble matters into perspective, and a craftsmanlike prose that has rendered it all into a very fine book."

Available from the Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567. Price, \$10 delivered.

April nights, the toads congregate to raise their sustained musical trill. In silence, other amphibians have also been gathering: red spotted newts, Jefferson's salamanders, spotted salamanders.

Oak Pond has been around for as long as anyone can remember. It forms each February as snowmelt and rain collect in its basin, which measures about 20 by 30 feet. In the wettest of years, Oak Pond never gets much more than knee-deep. Surrounded by brush and choked with grass, leaves and fallen limbs, it is a classic "temporary forest pond," a special kind of wetland that dots the Eastern hardwood forest. Temporary ponds are crucial breeding sites for perhaps half of the species of frogs and toads, and up to a third of all salamanders.

Joe Freda is a Penn State biologist studying temporary ponds. "Think of the pond as a pool of productivity in the forest," he says. "At the bottom of the food chain are algae, which flourish in water that is rich in nutrients from rotting vegetation. Invertebrates eat the algae, and tadpoles eat the algae and the invertebrates. When the tadpoles transform, they become salamanders or frogs or toads that crawl and hop away from the pond, carrying the nutrients with them."

I shone my light on the wood frogs

as they called and kicked back and forth in the water. Wood frogs are two to three inches long, plus four-inch legs. Normally they are tan in color, with a dark band of pigment across the eyes like a robber's mask. In spring, increased hormone levels turn their entire bodies a dark mud-brown, so that their masks are hardly visible.

The males floated on the surface with arms and legs dangling. Every few seconds, each frog would inflate a pair of vocal sacs that looked like waterwings, and give a short, explosive quack. Calling can be dangerous; predators home in on the sound and snatch up the exposed males. The spring peepers and chorus frogs may be less vulnerable than the wood frogs, since they call from the protection of vegetation; also, the sequence of their calling—often one male will start, and then another will chime in and finish a split-second later—may make it hard for a predator to single out a target.

Floating frogs covered the pond. Time and again, one male would spot another male kicking, leap onto his back, and seize him under the arms in a tight mating grip. Quickly the frog on the bottom would utter a short croak, a release call that automatically made the first frog let go. When a female—slightly larger than the males—slipped into the pond, the water churned and splashed as four or five males grabbed her by the limbs. Finally one male, bigger than the rest, knocked the others off and clasped the female properly. (It didn't happen to this particular one, but sometimes a female gets mobbed by so many males that she drowns.)

The female kicked toward the south end of the pond, carrying the male on her back. She stopped and floated in place. I could not see clearly, but I knew what was happening: The female was laying her eggs, and the male was shedding his sperm over them.

Wood frog eggs stick together in a gelatinous, grapefruit-size ball containing upwards of 2000 eggs. Where the female laid her clutch, I have often found dozens of egg masses grouped





within a few cubic feet, while the rest of the pond had none. According to Freda, wood frogs concentrate their egg masses in the warmest part of the pond. Here, the eggs hatch quickly, so that the tadpoles can begin feeding without delay—an important advantage in a place as crowded and competitive as a temporary pond.

The female lays all of her eggs in a few hours; finished, she flees the pond, leaving her mate to call for other females. The eggs are on their own. On a cold night, eggs near the water's surface may freeze; or, if the pond's water level drops too quickly, they may be exposed and dry out.

After a few weeks, the surviving eggs hatch into tadpoles. A tadpole is basically a mouth, a gut, and an anus, propelled by a tail. In the pond, this eating machine consumes algae, plant material, and pond animals—protozoans, rotifers, water fleas, mites, and nematodes. As might be expected from the superabundant eggs, the amphibian lifestyle is a low-odds numbers game. Frog tadpoles are gobbled up by water bugs, dragonfly naiads, diving beetles, salamander tadpoles, shorebirds, and mammals.

If a tadpole lives until summer, it will turn into a frog. The change is a considerable one; among vertebrates, only the amphibians—frogs, toads, and salamanders—undergo this wholesale restructuring. Hind limbs and fore limbs, which started as buds, become whole and functional. The tail shrinks back into the body. The circular suckerlike mouth spreads and thins into a frog's gape. Inside the body, lungs replace gills, the digestive system restructures itself to accept an all-meat diet, and bones become solid.

In general, the earlier in the year that a species breeds, the sooner its eggs hatch and the faster and bigger its tadpoles grow—the better to eat other creatures, and to avoid being eaten. Marbled salamanders come to the pond in November and December. The females lay their eggs in the dry pond basin, autumn rains fill the depression, the eggs hatch, and the larvae spend the winter developing. Tiger salamanders crawl under the ice to breed in February, and Jefferson's and spotted salamanders follow soon after, about the time that the wood frogs start to call. With their head start and voracious appetites, salamander tadpoles are the

top predators in temporary ponds, feasting on a vast array of insects, and on many kinds of frog tad as well.

As summer proceeds, the rains fall less frequently and the pond begins to dry up. Joe Freda, the Penn State biologist, says, "The basic strategy is to eat as much as possible to prepare for getting out of the pond. In general, the pond is a safer, more comfortable place for a young amphibian than the land. So the longer a creature can stay in the water, the better." The tadpoles develop and get ready to transform; then they go on hold, until stress, caused by dwindling food or a too-low water level, goads them into completing the change. In some years, drought dries the pond before the amphibians leave, and a whole generation reverts to a black, stinking ooze. Actually, the destruction benefits the pond-dwellers: The periodic drying makes it impossible for fish—marvelous tadpole eaters who may enter a pond when nearby streams overflow—to become established.

In most years, a tiny minority of tadpoles survives to become adults. The creatures leave the pond and fan out into the land. The salamanders live like moles in the moist spaces beneath stones and logs, eating worms, insects, and snails. Wood frogs inhabit the leaf-littered forest floor (their color now perfectly matches the dead oak leaves), venturing about on clammy days to hunt beetles, flies, and worms. Toads prowl through woods, weeds, yards, and gardens eating assorted insects and other creeping things. Spring peepers

spend the summer on the ground or in low shrubs, gobbling up aphids, mites, ticks, spiders, ants, leafhoppers, and beetles. I remember the last peeper I saw away from the pond. It was after a rainshower, and I was picking blackberries. I reached for a ripe cluster, and there he was: a skinny-legged, fat-bellied little frog with suction-cup toes and a cross on his back.

In the forest, amphibians fall to larger predators. Some studies suggest that the biomass—the actual weight of living tissue—of amphibians in a given area of woods can far outweigh the biomass of breeding birds, and can sometimes be greater than that of small mammals. This means that amphibians play a far larger role in the food chain than many people realize. Also, breeding amphibians concentrate in early spring, a time when food is scarce for other animals. Bears, raccoons, skunks, opossums, foxes, weasels, otters, kingfishers, hawks—all home in on temporary ponds when the frogs start to sing.

I stayed late at Oak Pond that March night. The calling never let up, the clacking, creeking, peeping. I mucked around at the water's edge, feeling the ripples of swimming frogs, hearing startled yelps and loud splashes. The cone of my light found a spotted salamander—blue-black and spotted with yellow dots, a good eight inches from nose to tail-tip—weaving and twirling through the water in a silent, hypnotic dance. When I left, all the way back to the house the chorus was in my ears.







**MAKING** that first shot count should be a goal of all hunters, but particularly for archers.

If you had only . . .

## ONE ARROW

By Keith C. Schuyler

**F**OR THE PURPOSE of this presentation, let's go back deep among the mountains of anywhere. You are lost, it is again snowing, the temperature is starting to drop menacingly, you ate your last chocolate bar three days ago. Foolishly, you have wasted five of your six arrows on long shots at a small deer that was alerted to your presence and jumped every time you shot. At least that is your excuse for the misses that sent your arrows somewhere under the leaves and light snow cover as you followed the animal, not concerned about the falling flakes that soon covered your tracks.

Now the situation is serious. You are desperately hungry, weak from efforts to find your way to safety. Even though you have finally built a lean-to of boughs and have enough matches left to start a few more fires, you don't

know how long it will be, if ever, until searchers will find you during the intermittent storms that add to the knee-deep snow.

Then, into the sphere of your seesawing panic comes another lost creature—a yearling whitetail that became separated from its companions during the last storm. This creature represents what you came after in the first place. Only now it may be the difference in whether or not you survive. You slip your last arrow onto the string and ever so carefully prepare yourself mentally and physically for the shot, trying to ignore the sting of snow pellets against your eyes. Everything you ever learned or were taught about shooting the bow moves in high speed images through your brain. You balance your weight between your numb feet, push and draw against the

## STRAIGHT FROM THE BOWSTRING

bow in one coordinated movement, settle your string hand against the familiar spot on your face and prepare to loose your last shaft at that broadside deer standing quietly with its nose testing the storm. This shot must be the best ever.

*Sssuuup!* The arrow is on its way.

Nothing can bring it back for another attempt. You are a part of the power and the accuracy in that shaft – mentally and physically.

### Only You Know

So much for that. Only you know whether or not you killed that deer or they collected your bones in a basket the following spring, or summer, or ever.

But this contrived episode is intended to convey the need to put into every release of an arrow the same urgency to succeed that is needed in the previous situation. This should be true whether the shot is at a paper target, a convenient stump or a living creature.

Ever watch a professional archer

shoot? I mean the top pros, the ones who take home the money. Each shot is almost desperately deliberate. Never mind the extra contraptions they utilize to get the most out of their bows and themselves. They can't afford to miss. The fact that even they do sometimes miss is what makes a tournament a contest.

You and I should put forth the same concentration on each shot, or we shouldn't be in the contest or the hunt. Each arrow should be loosed as deliberately as the one at the mythical deer, even though the consequences of a miss are much less serious.

Too often we shoot to the point that we are physically unable to keep it all together. The bow arm starts to drop or drift; we creep and change the flexible characteristics of the shaft we so carefully selected to match the bow. We let bad habits insinuate themselves into our level of expertise. We practice too long at one time but not often enough to tune our muscles and mental awareness.

There exists a group of riflemen who restrict themselves to one cartridge when they go on a hunt. The implication, of course, is that they should be able to down the quarry properly with one shot. Further, it removes the temptation to take shots that should not be attempted. You could get an argument that at least one extra cartridge should be taken for that occasion when "a perfect shot" could fail to make an immediate kill.

Bow hunters can take a lesson from such an approach. This is not to suggest that any archer confine his chances to one shaft, but he should select his shots so there is a reasonable chance that one arrow will do the job. Each opportunity should be approached mentally as though only one arrow, the one on the string, is available.

Any experienced bow hunter knows

**THIS STEEL replica of a deer at Kaufhold's Archery Lanes, Lancaster, forces hunters to either make their shots count or pay the price.**





there are occasions when extra arrows are needed. An unobserved limb might catch the first shaft, the first arrow just might be a complete miss and another animal may show itself immediately, the first hit may not put the creature down for keeps. More often than not, a deer or a bear will not wait for the second shot. But few archers would want to go back to camp for a second arrow if the first wasn't effective. Realism must be accorded its place alongside the romance attached to hunting with the bow.

No big game animal has afforded me a second opportunity directly after a miss, but there have been times when an extra arrow, or arrows, was needed. In fact, any time there is any doubt that an animal is dead, a second shot is advisable. I recall an instance in the early days of Pennsylvania bow hunting when a hunter approached a downed animal and was about to place another arrow in it. His companion assured him an additional shot was unnecessary, so he prepared to field dress the animal. Thereupon, the deer jumped up and ran away.

### Practice With Broadheads

As has been urged here a number of times, no one should attempt to hunt with broadheads which have not been shot in practice. Even if, in the interest of economy, only one arrow is utilized for practice, it can be assumed that other shafts of like size, fletching and broadheads will fly the same. And, it usually takes only one arrow to effectively down any species of big game.

One arrow. By now you have heard many times that the best broadhead is one that is properly placed in an animal. It is a statement limited in truth only by the ability of the archer behind the bow. It is also true that some broadheads are more effective than others if all are properly placed. But the best of them is ineffective if it sticks in a tree or is wasted against a rock.

The Pennsylvania Indian used his arrows most conservatively. It took a

## GAMEcooking Tips

The pheasants you bagged last fall and froze should be used soon before they lose some of their flavor. Sunchoke Pheasant is a different and delicious preparation.

The Indians of Cape Cod grew a root of a variety of sunflower, a tuber they called "girasol." Explorers took a sample back to Spain, and in a few years the "girasol" was popular all over Europe as the Jerusalem artichoke.

Today you may see Jerusalem artichokes marketed as Sunchokes. Sunchokes are a good source of iron, and low in fat, sodium, and calories. They have a crisp texture and a pleasing nutty flavor. Wash and scrub well; for maximum nutrition, do not peel. Sunchokes may be eaten raw in salads or sliced and used with a dip. They are excellent sauteed, steamed, pickled, or baked. They are easy to grow, thrive in all areas of our state, and are available in most supermarkets, year-round.

### Sunchoke Pheasant

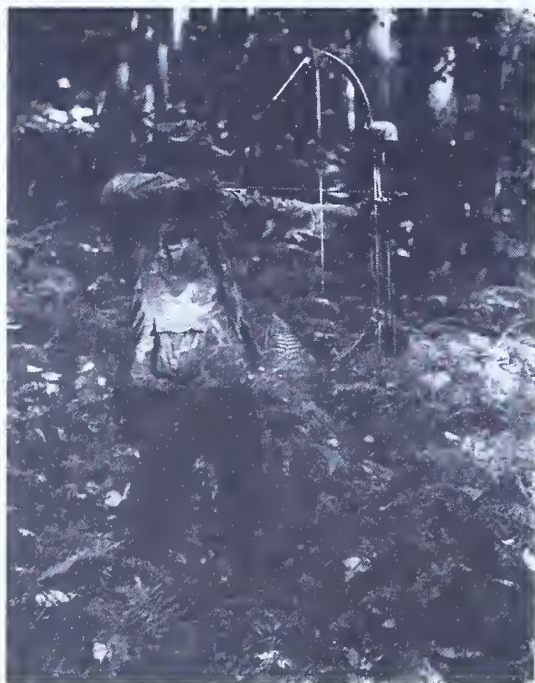
- 6 pheasant breasts
- 1 pound Sunchokes, cut into half-inch slices
- 2 cups fresh or frozen orange juice
- 12 ounces frozen or fresh pearl onions
- paprika, salt, pepper, garlic powder to taste

Preheat oven to 325 degrees. Place pheasant and vegetables in oven dish. Sprinkle on seasonings, pour juice over, and bake one hour.

by Carol Vance Wary

lot of time and effort to make a good projectile and to affix the head and the feathers. It is likely that, even on what might be considered a perfect hit, the arrow would be broken or lost. If it brought needed venison to the bark house, the sacrifice of one arrow was cheap exchange for the benefit. But a miss and a lost or a broken shaft was a considerable loss.

Consequently, although even the In-



dian carried extra arrows, he used all his woods lore to stalk close enough to make that first arrow effective. His very life, and that of his family as well, might depend upon the outcome. Al-

**OF COURSE**, extra arrows should be carried. But when it comes time to shoot, archers must concentrate on making that first shot count.

though most circumstances were not so critical, at any time the carcass of a deer was a valuable consideration from the standpoint of antlers, hide and bones in addition to the sustenance it provided.

In historical retrospect, it is strange to note that the famous English long-bow, which was the model for early archery in this country, was so often used to direct showers of arrows against the enemy in battle. Then as now, there seemed little consideration for economy when it came to the military. But bowmen such as the mythical Robin Hood were likely as conservative as our Indians when they went after the king's deer.

Although our need is not so great, it would seem advisable that we emulate the hunters who came before us — and make that first arrow count.

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RED MILLER, left, of Miller's Gun Shop shows a 7 x 57 Argentine Mauser to Joe Macurach. Such a rifle is a comparatively inexpensive backup that could turn out to be invaluable on a hunt.

# SPRINGTIME THAW

By Don Lewis

Photos by Helen Lewis

A WARM WIND accompanied by a blazing sun sounded the death knell for the shallow snow covering on the landscape. It was a sharp contrast from the night before when a howling, cold wind was in command and winter's end seemed forever away. Sure there would still be several onion snows, as the old-timers called them, but on this April Fool's Day, it was evident winter had been beaten and the time had come for the springtime thaw.

From a practical view point, this is undoubtedly the most frustrating time of year for the hunter. The fishing buff is anxiously awaiting the opening day of trout season, and the trapper can

keep busy for a month or so working on his gear and planning for next year. But what can the hunter do? It's too early to hunt woodchucks, too cold for range testing, and it's safe to assume the hunting guns were cleaned after the late small game season ended. While springtime is a welcome period for most people, it's a time of uncertainty for the hunter.

It doesn't have to be a time of despair and painful waiting though. In reality, numerous things can perk up the mind and add a new dimension to life. For example, what about a spare back-up rifle — and I'm not talking about a \$350 investment. I realize you may question

my judgment, especially if you already own several fine big game rifles. But my suggestion is to have a rifle that doesn't have to be insured or protected to any great extent. In other words, we're looking for an inexpensive rifle that will fill a gap in an emergency.

Your first question will be, "What do you mean by inexpensive?" Before I can answer, you'll fire the second barrel, asking if I'm aware of the cost of a used Remington 760, Winchester Model 70, Ruger M77 or a Savage 99. Well, I wouldn't have brought up the question if I didn't have an answer. I'm not extra bright, but I'm not going to paint myself into a corner with the door on the opposite side of the room.

### Good Supplies

At this time of year, many gunshops have a good supply of used rifles in the class mentioned earlier. Still, a look on a back rack or in the shop's basement may bring to light a good ex-military rifle that has been forgotten. While this rifle may leave a lot to be desired from a cosmetic standpoint, it probably can be brought to life, so to speak, without investing more than a few dollars — and I mean by the owner, not having it done.

Just in case you're wondering why a gunshop would have one or two such rifles on hand, you can bet your top deer rifle they are leftovers from golden days of the ex-military import during the 1950s and '60s or they were part of a trade-in the gunshop owner would like to forget about. It makes no difference how the gunshop got them, the fact is they are there and many times can be picked up for a few dollars.

I want to reiterate that the rifle you should be primarily interested in should

look like a clunker, feel like a clunker and work like a clunker, even though it has been sporterized to some extent. This is not a time to think of a lifetime investment; the main object is to get a rifle, ex-military or not, that has been range tested and is on the bottom rung of the price ladder. Take my word, this type of rifle is still available, and here's why. During the 20-year period before the Gun Control act of 1968 put a deep crimp into the sale of these ex-military rifles on the mail order level, a half-dozen firms were advertising these outfits as "sporterized." Hacked up would be a better description for a lot that I saw, but they didn't do all that bad from my benchrest. So, if all the serial numbers on the various parts are the same and the rifle has been actually fired by the gunshop and is safe, it could be the start of a springtime thaw project that will not only be worth your investment in time and money, but will also give you a rifle that could fill a much needed gap sometime in the future.

I'll go one step further to save you more money. If you're a scope addict, don't buy one of these imported orphans of World War II unless it is drilled and tapped for a scope and has had the bolt and safety altered for a scope. In the heyday of so-called customizing the ex-military import, many were fitted with inexpensive scopes and had the safety altered or changed, along with bending the bolt handle. Check to make certain the safety will be easy to get to and operate after a scope is installed. I ran into several that didn't have a new safety installed, and it was next to impossible to use the original safety with certain types of scope mounts.

It's surprising how many of these rifles that flooded the marketplace after World War II were latched onto by the hunting fraternity and altered — anything from merely bending the bolt handle with an acetylene torch (I hate to admit it, but I did more than one) to going all out for a new barrel and stock with inlays and fancy butt pad. At that time, these rifles were dirt cheap. I recall seeing a full rack of these out-





fits—as issued—with a \$15.95 price tag and a warning that they might not be safe to shoot. This came about because many armies were switching rapidly from bolt action rifles to semi-automatic weapons. And I know from my own experiences that a lot of these rifles eventually were altered for scope mounting or had stocks sporterized in some fashion. I'm not just talking about gunsmithing firms doing the sporterizing; there was a real emphasis on sporterizing at the home level. Believe me, thousands did, too.

When American rifle manufacturers got back to producing civilian outfits, the novelty of working over ex-military outfits more or less went down the drain. Keystone State hunters began replacing these old jobs with new bolts, levers and pump outfits. Home customizing or whatever you want to call it was short lived, but it left us many ex-military outfits that can neatly fill the bill for the back-up rifle.

You might wonder why I'm suggesting going all out for an inexpensive spare rifle. Actually, I have three reasons: First, it will see little use unless it becomes a perennial "loaner." I'm certain hunters won't leave a Remington, Ruger or Winchester at home to carry a 7.65 Belgian Mauser unless it's a genuine emergency. Secondly, this type of rifle can be left in camp or in the car trunk and the owner won't worry much about it being stolen. Having been cut down or worked over, it has lost any value it might have had as a collector's piece, and from my own observations of the home sporterizing I witnessed in the '50s and '60s, it isn't the type of rifle a thief would make a great effort to steal.

The third reason is the unusual caliber. I'm not implying that a 7.65 Belgian Mauser, 303 British, 7mm Jap or 7.65 Argentine Mauser is necessarily an

oddball, but components for it aren't as accessible as for the 270, 308, 30-06 or 7mm Remington Magnum, say. Consequently, there isn't much desire for these outfits, even though they have all the power and accuracy requirements to qualify as whitetail deer and black bear calibers.

### Sporterizing

Earlier, I mentioned home sporterizing. I want to make clear that I'm not referring to the type of work that comes out of a custom gun shop. A genuine custom gun is a different thing entirely. The type of sporterizing I'm talking about is shortening the stock, installing your own buttplate, or putting a new finish on the stock itself. I'm not even taking in glass bedding, inletting, or barrel shortening. Here again, this is technical work for a competent gunsmith.

I should point out that if you find a top quality outfit at what seems a basement bargain price, but it hasn't been altered for a scope, it would cost roughly \$85 to have all the necessary work done. This would include drilling and tapping the holes for the mounting screws, installing a new low swing safety, and bending the bolt or installing a new bolt handle. Naturally, the



**SCOTT JOHNS, Adrian, heard shots while working in his garage—where his 303 British happened to be stored. This old military arm isn't the greatest hunting rifle, but Scott's trophy 10-point proves it's good enough in a pinch.**

total cost varies with the area you live in. It might be wise to check these prices of these alterations before deciding on a particular rifle.

A word to the wise might be needed here. If you shorten the stock and install a new pad, don't expect the finished job to be on a par with your local gunsmith's efforts. This is your first job, whereas he may be working on his thousandth pad installation. Believe me, there can be a difference in results.

Although I have emphasized the scope here I think it's a wiser move to stick with open sights on such a gun. I'm opposed to sticking on any old type of scope for the sake of mounting one. Buying a used scope of unknown quality that could fail when the weather turns sour, or even an inexpensive scope, pushes the total price of the rifle upward, making it rather costly as a springtime project. The scope on any hunting rifle should be of top quality, which means a good chunk of hard earned cash will go for it alone. As much as I prefer the scope, on a bad weather backup gun I would go with a peep sight with an ivory bead on front.

With all the good things a spare rifle offers, there are some drawbacks to

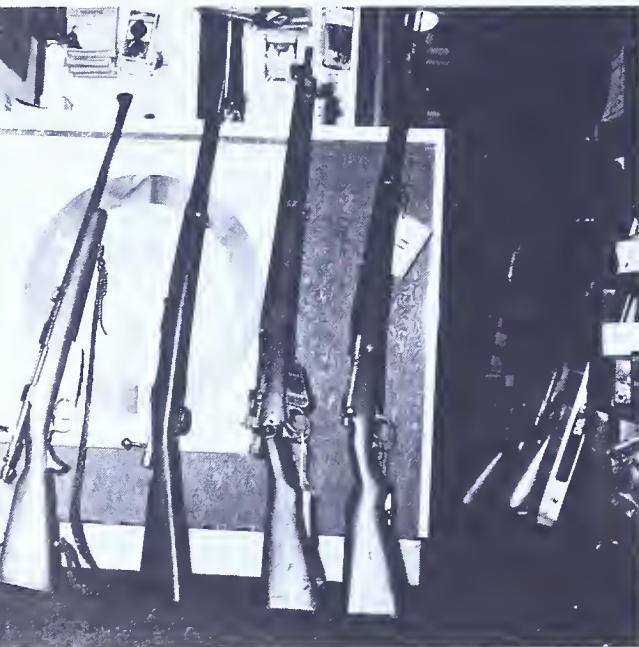
consider. As mentioned, don't get carried away with the sporterizing. Keep it simple and down to earth. This is just a spare rifle; not one you will have on display above the mantle. Stay clear of expensive trigger alterations, and don't wildcat it to some other cartridge.

In some cases, the most trying problem with the ex-military castoffs is getting good hunting ammo. Military fodder is practically worthless as hunting stuff in my book, which means sticking with reloaded ammo. There's nothing wrong with this except it may mean either getting involved in reloading or at least buying another set of reloading dies. One more thing to consider is the availability of brass for your selection. Some of the older foreign cartridges are disappearing, making it difficult to get brass. Some older cartridge cases can be "wildcatted" from a conventional case, but this involves a lot of extra work and equipment.

### Don't Go Overboard

When the rifle is finally ready for range testing, don't anticipate minute-of-angle groups. Unless you have a borescope available, you can only speculate on the barrel's internal condition. It can be good or bad, and that's even more reason not to go overboard in sporterizing the spare rifle. However, I think it's fair to expect 3-shot groups in the neighborhood of 3 inches at 100 yards. I wouldn't get too alarmed if they ran out to 4 inches. Even if they fall down to the 2-inch or below class, I wouldn't start dreaming of going all out to sporterize this rifle as a replacement for your factory outfit. Let it always be a back-up rifle.

You might not agree with me that a rifle of this type could be useful. Let's look at it in a practical light. In today's affluent society, many hunters, including yours truly, have two or three big



**A TREMENDOUS** variety of obsolete military arms is available. Hunters should choose one for which hunting ammo is easily obtained and that requires minimal sporterizing.



game rifles. My question is, "Do you want to carry a Colt Sauer, Ruger 77, Remington 700 or any other top quality rifle as a spare? Would you feel safe leaving a \$450 rifle carrying a \$250 scope in camp through the hunting season to be used as a spare rifle or to be loaned to the unfortunate buddy who left his rifle back home?"

When I was a youngster, my father kept a battered single shot 22 rimfire in the barn for rat shooting. It got rustier by the year, but it was always there in case a rat appeared. It was a \$2 investment, but it paid for itself a dozen times over. The same goes for the rifle I have in mind. What a relief it would have been for a fellow I know who pulled

the head off a reload. For more than an hour he and several friends worked to get the brass hull out, but to no avail. His only alternative, since no one had a back-up rifle, was to head more than 100 miles back home. That fellow will never get caught in such a predicament again; he has a back-up rifle now.

Instead of standing with your nose pressed hard against the livingroom window, waiting for the snow to leave and the ground to warm, start visiting gunshops in quest of an ex-military rifle. If you find one, the next two months may be the happiest period of your life—even though your wedding anniversary may fall smack in the middle of it.

## *Books in Brief . . .*

(Order from publisher, not from Game Commission)

**American Ginseng: Forest Gold**, by Kim D. Pritts, from the author at P.O. Box 182, Mount Joy, PA 17552, 32 pp., softbound, \$4.45 delivered. American settlers began digging ginseng for export to Asia 250 years ago, and collecting it is still a popular pastime for many today. Presented here is an historical account of ginseng collecting, detailed information on the plant, its purported medicinal uses, modern restrictions designed to control harvests, and more. A good concise book on an age-old custom.

**The Grizzlies of Mount McKinley**, by Adolph Murie, University of Washington Press, P.O. Box C-50096, Seattle, WA 98145-0096, 270 pp., softbound, \$9.95. An authoritative account of one of the continent's most magnificent animals and places. The author spent 25 summers, during the 1922–1970 period, studying grizzlies in Mount McKinley (now Denali) National Park. Presented here is a popular version of his many discoveries, previously available only in formal government and scientific publications which have been out of print for quite awhile.

**The Steel Trap in North America**, by Richard Gerstell, Stackpole Books, Cameron & Kelker Sts., Harrisburg, PA 17105, 352 pp., \$50.65. A lot has been written about early American trappers, but little about the tools of their trade. This outstanding book fills that void. The author, who at one time was Chief of Research for the Pennsylvania Game Commission, has documented the development of steel traps from the 1600s to the present. Over 400 photographs and drawings portray a wide variety of designs. It's obvious a great deal of research went into preparing this book, which makes it a detailed and comprehensive history of the continent's fur business as well.

**The Woodland Steward**, by James R. Fazio, Woodland Press, Box 3524 University Sta. Moscow, ID 83843, 211 pp., \$16.90, delivered. Here are detailed, easy to follow forest management directions to help owners get the most enjoyment and return from forested properties. Whether objectives are for wildlife, firewood, commercial timber sales or others, this guide covers the basics to properly manage and maintain woodland properties.

# *In the wind*

bob mitchell



Our waterways are cleaner, according to an Environmental Protection Agency report, "National Water Quality Inventory 1984." Fishing, swimming and other designated uses were supported in 73 percent of assessed river miles, 78 percent of lake acres surveyed (excluding the Great Lakes), and 82 percent of assessed estuarine and coastal waters. Acid precipitation, toxic wastes, non-point pollution, wetland losses and mine drainage are among many threats to our waterways that have yet to be adequately addressed, however.

**For illegally killing four antelope, three New Mexico men were assessed a total of \$9,600 in fines and civil damages, and each was placed on three years probation. These penalties are the largest handed down in any case initiated with information received through the state's 8-year-old Operation Game Thief program.**

The third of five male dusky seaside sparrows captured in 1980, as a last ditch effort to save the endangered bird from extinction, recently died of old age. Because no female dusks have been known to exist for years, the male sparrows were captured and bred with a closely related species in an attempt to eventually produce a nearly pure strain of dusks. The cross breeding program was started at the Florida State Museum and has since been transferred to Walt Disney World's Discovery Island zoo. In 1985, two 87.5 percent dusky females were produced. If they can be bred with the two remaining males, which are 10 years old and no longer very fertile, the resulting offspring will be 93.75 percent dusky.

New York's Bureau of Environmental Conservation Investigations is clamping down on environmental polluters. Thirty-five law enforcement officers have been trained specifically to investigate environmental infractions, especially the illegal hauling and dumping of hazardous wastes. Over the 6-month period ending September 30, 1985, officers investigated 250 incidents from which 103 charges were filed and \$155,697 in criminal fines and civil penalties collected. The success of this bureau reflects New York's commitment to locate and prosecute environmental polluters to the maximum extent of the law.

A federal district court judge in Wyoming has ruled that ranchers may not erect livestock fences—on public or private land—that exclude wildlife from public land. According to the Wildlife Management Institute, the ruling, which stems from a case in which a rancher erected a fence on his property in such a way that pronghorn antelope were kept from winter range on public land, is most significant because it guarantees wildlife, not just people, access to public lands.

To increase Pittman-Robertson funds, federal lawmakers are considering the addition of reloading materials and equipment, air guns, and clay target throwing machines to the list of sporting equipment currently being taxed to provide funds for wildlife conservation. According to the National Wildlife Federation, which supports the proposal, such additions could annually add tens of millions of dollars to the 50-year-old program.

**According to license checks conducted by Kansas Fish and Game Commission officers, one out of every 20 hunters, fishermen and boaters failed to have the required licenses. This 5 percent noncompliance rate translates into a loss of more than \$138,000 in license revenues for the state.**

For illegally killing a bighorn ram, a Wyoming man was fined \$1010 and his accomplice was fined \$510. In addition, each received a 6-month jail sentence—all but seven days of which were suspended—and lost his hunting license privileges for two years. The prosecution was successful because of information provided by two nonresident hunters who witnessed the crime.

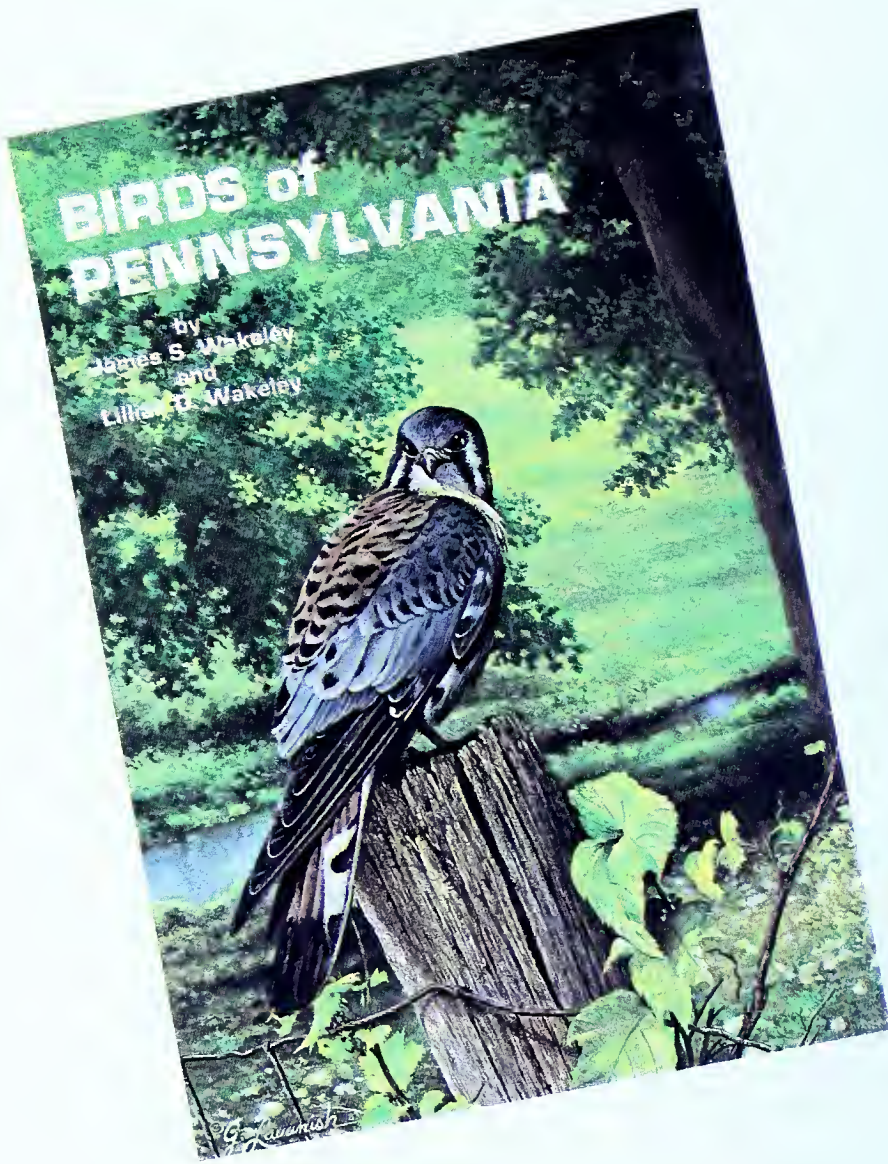




## **Voluntary Waterfowl Stamp No. 4**

Pennsylvania's 1986 waterfowl management stamp, created by Alabama artist Robert C. Knutson, is the fourth "duck" stamp offered by the Game Commission. Funds derived from stamp sales are used for wetland acquisition, habitat development, and waterfowl-related education. Stamps cost \$5.50 each, \$22 for a plate block of four, and \$55 for a full sheet of ten, delivered. 1984 and 1985 stamps are still available, at these same prices. For additional savings, the cost for five or more ten-stamp sheets, in any combination of years, is \$40 per sheet. The 1984 stamps will be available through December 31, 1986, at which time all remaining supplies will be destroyed.

Stamps are available at the Game Commission's Harrisburg office, regional offices, the Pymatuning and Middle Creek Wildlife Management areas, and at participating hunting license issuing agents and stamp dealers. Signed and numbered fine art prints of this design are available from art dealers and galleries nationwide.



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*Birds of Pennsylvania: Natural History and Conservation*, a completely new book by Jim and Lillian Wakeley, includes the most up-to-date information on bird biology and behavior, and the kinds of birds commonly found in the state, arranged according to the type of habitat where they are most likely to be seen. This 214-page hardcover book, supplemented with 40 full-color pages featuring the Game Commission's popular bird charts and previous GAME NEWS covers, is being sold for \$10, delivered.

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Shown here is the fifth in the Game Commission's annual series of embroidered patches and decals offered through the Working Together for Wildlife program. Funds derived from the sale of these and other selected items are used specifically for nongame research and management projects. Bald eagles, otters, ospreys and eastern bluebirds are just a few of the animals being helped in Pennsylvania, thanks to the people who've been supporting this program. This year's patch is priced at \$3, and the decal at \$1, delivered. Make check or money order payable to: PENNSYLVANIA GAME COMMISSION, Dept. AR, P.O. Box 1567 Harrisburg, PA 17105-1567.



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**COVER PAINTING BY NICK ROSATO**  
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# PENNSYLVANIA



## YEAR OF THE FOREST

**1986** IS "THE YEAR OF THE FOREST" in Pennsylvania. This is a fitting tribute. It has long been recognized that our forests provide outstanding opportunities for hunting, hiking, camping, sightseeing, snowmobiling and other recreational activities, and that they are the normal habitat for many species of wildlife. Our forests also play a critical role in the state's supply of clean water, and fuelwood as an alternative energy source. Consider some of Pennsylvania's forest-related factors:

Almost 17 million acres of this state, 58 percent, are forested; forests cover more than 80 percent of the land area in six of our counties, and more than 60 percent in 20 counties; Pennsylvania has the greatest proportion, 24 percent, and acreage, 4.1 million acres, of public forest land of any state in the Northeast; Pennsylvania has more private landowners, 490,000, than any other state in the nation; Pennsylvania has more hardwood growing stock than any other state; our forests contain some of the world's finest quality black cherry, red oak, white oak and white ash; the forests of Pennsylvania contain enough sawtimber to build 2.7 million single family homes.

Pennsylvania's wood products have an annual economic impact measured in billions of dollars. Consider that 1599 companies, including 900 sawmills, 10 pulpmills, 154 pallet mills and 71 furniture plants, employ over 82,000 persons with a \$1 billion payroll; the value of production is \$5 billion with an added value of \$2½ billion; capital expenditures exceed \$230 million.

Within Pennsylvania, 122 species of birds and over 50 species of wild mammals are primarily forest dwellers, while another 54 bird and 7 mammal species are partly dependent upon forests. The largest black bears in America are found in this state. Pennsylvania leads the nation in number of hunters, 1.2 million, and ranks seventh in sports fishermen. Hunters and fishermen spend almost \$2 billion annually on their sports. Approximately 10 million acres of forest land are open to hunting in Pennsylvania, and these forests protect over 25,000 miles of streams and rivers. Typical of these areas are the watersheds of our three main rivers—the Susquehanna, Delaware and Ohio—which are more than 58 percent forested.

In addition to the great values of hunting and fishing, camping, boating and sightseeing add an estimated \$1.4 billion to our economy annually. For active visitors, over 8000 miles of designated trails—hiking, bike, ski, snowmobile, and ATV—are available in Pennsylvania's forests. For those who prefer more relaxed outings, a State Park is located within 25 miles of every citizen of this commonwealth; the popularity of these parks is shown by the fact that annual attendance exceeds 34 million visitor days each year.

It certainly would not be inappropriate for each of us to spend a few minutes pondering Pennsylvania's blessings in this, The Year of the Forest.





AS THE SQUIRREL reached the center of the roof, the male nighthawk dropped from the sky and came within inches of striking it.

## *Eastern Nighthawk* (*Chordeilas minor*)

By Carsten Ahrens

ONE OF THE birds that fascinated me as a boy in the swamp country, and now as a grown-up in town, was and is the nighthawk. It was a much misunderstood bird in the past and still is. A lot of the confusion is caused by the inaccurate name it has been given. It isn't a bird of prey, a predator or a hawk, and it's difficult to understand why it ever was considered one. "Night" is also a poor adjective, for the bird is often as diurnal as it is nocturnal. And the family name of the various members, "Goatsuckers," is so farfetched as to be absurd. The family is worldwide (except for New Zealand) and the Goatsucker appellation was given to related birds in Europe and

brought to America with the early settlers. The use of the common name was an extreme disservice to a bird whose menu consists almost 100 percent of insects.

I never weary of watching this bird's aerial maneuvers. It starts toward the zenith on long pointed pinions with slow, powerful wingbeats, glides briefly, and then follows with a more sturdy, upward movement. But often it stops its serious climb and appears to just clown about in zigzags, loops, flipflops, and such. Probably it has come upon a swarm of midges or other insects, and eats a few. Then, again it heads ably for the top of the sky. When but a speck up there, it almost closes its



**THE JANITOR** walked right up to the night-hawk sitting in the gravel. She watched us with oval eyes unusually large for a bird, but didn't fly until he touched her.

wings and plummets earthward, losing in split-seconds the altitude it had just reached. Down like a bolt it plunges, until, just feet from the earth and certain destruction, it spreads determined wings. Wind whistles through primary feathers and the fall stops abruptly. The bird careens upward, and a curious sound, as though the air has been torn asunder, resounds across the swamp. In England, because of this disruption of twilight serenity, the bird is given a better name: the nightjar . . . which it surely does!

During mating, the male repeats this acrobatic stunt many times a day, with its climactic noise, very close to the female he is trying to impress. But even after mating and the female is incubating the eggs, he continues his quixotic sky dives, and vibrates the gravel about her. Even late in summer and fall, long after nesting is over, he will occasionally resort to this spectacle.

As a schoolboy with a reputation of being bird oriented, I was asked by our

high school janitor to accompany him to the flat roof of the building to see a bird nesting there. He walked right up to the nighthawk sitting in the gravel. She watched us with oval eyes unusually large for a bird, but didn't fly until he touched her. Two off-white eggs dotted with dark flecks rested on the stones. There was absolutely no sign of a nest. When I moved a short distance away, the eggs disappeared, so perfectly did they blend in with the roof gravel.

I must confess a little disappointment. Having never seen a nighthawk up close, I found this one so mousy, so tame, it contradicted my notion of a blithe, freedom-loving creature that streaked through the sky. It should nest atop a tor or on the tip of a giant oak, I felt — not on a schoolhouse roof!

Many birds lay a nest-full of eggs, but nighthawks only two. Incubation takes about 16 days, and in another 18 days the young have feathered out and are on their own. Some authorities say the males aid their mates in brooding the eggs. I have never observed this. He, however, is always nearby at night, crouching along a limb, not athwart it as most birds sit. Both birds bring food to the young.

### On the Roof

I was on the schoolhouse roof one day while the female was on the eggs. When I stepped through the door, a fox squirrel that had climbed up the ivy from the ground was crossing the gravel. As he reached the center of the roof, the male nighthawk dropped from the sky and came within inches of striking the mammal, and the loud air-tortured noise he made so startled the squirrel that he leaped over the edge into the shrubbery below. The action might have been unusual, but it certainly worked. I never saw the intruder up there again. Through it all, the female on the nest made no move.

The nighthawk is more diurnal than any of its relatives, the whippoorwill (the same size), the poor will (smaller), and the chuck-will's-widow (larger).



All are named for their calls. All are somber-hued birds—dull brown, black, gray—with the males having a few white markings. Their mouths are so large that when a bird calls, its head, rather than its beak, seems to open. This makes it possible for them to capture large moths, katydids, and even dragonflies. Surrounding the mouth are stiff whisker-like hairs that guide insects into the opening. Thinly edging the mouth is a narrow and unimpressive bill that is anything but hawklike. They get water during flight as swallows do: the lower bill meets the water as the bird skims above a stream or lake.

### Penetrating Pe-ent

The nighthawk has an often repeated, rather sharp and penetrating cry, a “pe-ent pe-ent,” and one is usually aware of the call before he sees the bird. Unlike some birds, it has accepted cities. In Pittsburgh, I often hear and see one high above the Golden Triangle. I’m always pleased in such a human-dominated place when I become aware of its insistent cry and then see it drop and bomb the Hilton.

Recently from my room in a Columbus hotel, I looked down on a long, flat, gravel-covered roof. A killdeer with its three tiny bits of down were running about on twinkling feet. Evidently the little ones had most recently hatched. Frequently, mourning doves, in fours and sixes, alighted on the roof and eagerly picked up the gravel, probably to aid their digestion. The mother killdeer would leave her young to dash at the doves, which took off at once. But soon more flew in. The adult killdeer almost exhausted herself chasing them away.

I was allowed on the roof to try for photographs, and found a brooding nighthawk. She flew from her eggs when I entered, but when I moved away she instantly returned. Evidently the nighthawks and killdeer tolerated each other, perhaps due to a considerable distance between nests. I noticed that the feet of the killdeer were strong



and active while those of the night-hawk were weak and almost useless. She depended on her wings almost entirely for locomotion.

During summer, nighthawks seem most ungregarious. Each male bird has a huge territory, vertically as well as horizontally. Each is a solitary performer, a soloist; there is only one nighthawk in his part of the sky. One hears and sees a chorus of red-winged blackbirds or goldfinches, but not of nighthawks. A single bird will quickly make himself known to anyone who is at all tuned in to birding. One just can't miss the tart pe-ent, the upward climb, and the plunge with its sonorous climax.

For about three months of the year, nighthawks are found everywhere in the Americas where insects occur. During the summer they fan out across the country to Nova Scotia, Hudson Bay, and Alaska; in winter they migrate through South America, well down into Argentina.

Don't look for them in early spring; they won't appear along with the earthworm-eating robin. They move slowly northward as flying insects take to the air. And they are among the first birds to begin the southward trek, often taking off as soon as their young are capable of flight in mid-August. They become more gregarious at this time, traveling in loose flocks. Each year a nighthawk makes a journey that could take him from the MacKenzie River in Canada to the Negro River in Argentine—and back again! One wonders if it lives to fly or flies to live.





BOB  
SOPCHIAL



# *In the Eye of the Beholder*

By John D. Taylor

**T**HE WORD trophy conjures up a number of images. It could be of an enormous whitetail, mounted from the shoulders up, hanging on a wall in a home. Or it could be something else, one of hunting's special moments captured in a recollection. Both have equal value, because a "trophy" exists largely in the eye of the beholder. . . .

I'm sitting in my uncle's den, in a brown leather Lazy Boy so comfortable it ought to be outlawed. He calls his den his trophy room because of the horned critters and other mementoes of hunting you can find there. And I'm looking up at a big Dall ram with nearly full-curl horns and a cape so white it almost hurts my eyes. Hanging on his wall, it's a silent reminder of a hunt to British Columbia not too long ago.

While my eyes scan the mount and then re-focus on particular details like a zoom camera lens, I remember some of the stories he's told about the hunt.

You could tell the trip was special. When he talked about it his eyes lit up. And even though he did a little "imaginating," you could see, when he glanced back over his shoulder in the middle of a tale to see if the ram was checking for accuracy, that the memories of damp cold lichen-covered mountain rocks, horse wranglers who dealt with grizzly bears on an almost daily basis, and a long shot through the scope of his favorite 7 Mag., were chiseled permanently into his mind.

I wonder how the trophies I've collected in my few years of hunting rate next to the ram? I have to admit I'm a bit envious. Someday, I'd like to shoot a big Dall ram, or a pronghorn with 16-inch horns, or a nice 6-by-6 mule deer. But I'm also realistic enough to recognize that my chances of doing those things are about the same as my

chances of finding a used car that works for less than \$500, or shooting doubles on grouse in Fall Down covert.

Even so, I'm proud of my trophies. Most of them are mental, symbolic reminders of good days afield, like pheasant feathers stuck in an empty shotshell case. And occasionally I wonder what someone sitting in the brown leather Lazy Boy in my trophy room (every respectable trophy room should have a Lazy Boy) would think. . . .

This is it, welcome to my trophy room!

I could tell you some stories, complete with imagining, but I won't. That's because you're a good friend, one who could immediately see through any prevarications and get to the truth of the matter. So I won't bother you with stories. I'll just tell the truth, as it happened to me, about some of my trophies.

See that tom turkey over there? Yeah, the one with his wingtips dragging the ground, strutting. He's the trophy I'm most proud of.

## **Flatfooted in Cutover**

That particular gobbler caught me flatfooted in a sprout-choked cutover. Yeah, I was fooling around with those infernal grouse again. I was listening for drummers on a road that went through the middle of the cut because the morning had gone so poorly with gobblers. I figured I couldn't do any harm checking it out. I found grouse there, too. But it was one romantic fellow close to the far edge of the cut, where the hardwoods met the cut's border, who really had me curious. I wanted to find his drumming log so I could come back later and shoot some photos. Looking for it was my undoing. That tom you see there sounded off and the earth shook beneath my



**HE'S NOTHING** spectacular, just a little fork-horn. He wasn't moving fast, either, when I got him, just a smooth, steady trot, the kind deer do when they're mildly alarmed.

feet. I forgot about grouse.

Now, any spring gobbler hunter knows you can't call turkeys into dense brush. But that's what I tried to do. He only had about 20 yards to come through, once he got to the edge of the woods, and there was a nice path from the woods into the cut. So I tried to call him over.

The gobbler got excited, very excited, cutting my yelps, getting rowdy on low clucks, and really firing up when I cackled.

But 20 yards of cut is 20 yards of cut. And to a turkey, that's 20 yards too much. I can still hear his gobbling, his footsteps on the dry leaves, and those wingtips dragging. It was great.

Pass the cider. All this talking is making my mouth dry.

You asked about the rooster alongside my turkey. What a pheasant!

I watched him grow from a downy chick to a long-tailed screaming banshee in two seasons, and that's an unusual amount of time for a pheasant to survive. But that old rooster was special, a real crackerjack.

He lived in a marshy spot no farmer would ever dream of turning into a soybean patch because it was matted so thick with weeds and multiflora rose the rabbits could hardly get through. But there was one path—the only path—that weaseled around in the stuff, and if you knew how to run it, you could sneak through. If you did, you'd find that sometimes even a sterile “clean farm” can hold enough roosters for several enjoyable hunts.

I wanted this particular bird because he was the first rooster Jack, who was then a puppy, locked up on. Jack pointed him during one of our late August wild bird training sessions.

How did I know it was the same bird? His cackle. It was the weirdest thing I've ever heard, sounded more like a croak, a “braaaaaak” instead of a “baaa-cawwk.”

The first time we had a go at him, he flushed wild, out of range, while Jack was working the intoxicating smells he left behind. When he left the ground, it was as though he was challenging me: “Go ahead, turkey, just try and outrooster this old boy. Mamma taught me all the tricks. I'm the biggest, baddest, most beautiful rooster this side of the Mississippi.”

So I took him up on it, and missed the second time we had him in the air.

### Easiest Shot in Book

It had to be the easiest shot in the book—a straightaway, from under a solid point. But I emptied both barrels with not a feather to account for it. I'm not sure why, but when he croaked I believe I lifted my head off the comb. That croak rang in my ears for the next three days.

The third time we flushed him, I was with a kid who, although he'd been hunting for three years, had yet to shoot a ringneck.

Rooster was leaving scent all through the marshy hole he lived in, and Jack was following it hard, getting cut by the rose. But when Jack wheeled around and locked up tight on a patch of multiflora, I knew we



had a bird. But I didn't expect it to be this one.

So I sent the kid ahead, in case the bird jumped Jack's point, while I untangled myself from a rose patch. When the bird burst into the air, croaking like he did, I knew our days of matching wits were over.

The kid never had such an easy shot before—first time he hunted over a bird dog. And I never saw such a happy kid in all my life.

### Representative Bird

That grouse? He's a representative bird. One who symbolizes all the troubles I've had with those infernal creatures in the South Mountains. He's 40-yard flushes, easy shots muffed because of tangled legs and guns, and legs that at the end of the season look like a road map of York County's 2001 backroads. And he represents one particular covert, too: Horsekiller—HK for short. That's because HK has hill-sides so steep they can kill any horses and grouse hunting fools who venture into the place. Darn birds give me the willies even though I love 'em.

My only big game mount is that whitetail. He's nothing spectacular, just a little forkhorn.

He crossed the top bench of Jacob's Hollow in Potter County two seasons ago, while I was sitting among some blown-down old hemlocks that whispered special things when the wind moaned through them, eating lunch. It was the year they clearcut Jacobs, and the buck popped out of a clump of maple sprouts that had come up. You'd have sworn, by the amount of noise he made, that a herd of elephants was going through. But I was so engrossed in moaning, "Why did they have to cut my special place? I killed my first buck here," that I almost didn't see him.

He wasn't moving fast, either, just a smooth steady trot, the kind deer do when they're mildly alarmed.

I knew it was a buck. I could see antlers plainly. But he popped over the rise so quickly I didn't have time for a

## GAMEcooking Tips

### Venison Steak Extraordinaire

- 6–8 boneless slices of venison steak, one-half-inch thick
- ½ cup olive oil
- ¼ cup wine vinegar
- 2–4 tablespoons additional oil for frying
- 2 cups prepared bread stuffing
- 1 cup spaghetti sauce
- 12 ozs. mozzarella cheese, sliced
- ¼ cup grated Parmesan cheese

Mix olive oil and vinegar. Pour over steaks in a Ziploc bag and allow to marinate 4–6 hours at room temperature. Remove from marinade, and sauté in medium hot skillet in the additional oil. Remove browned steaks to foil-covered cookie sheet. Place about a quarter-cup of stuffing on top of each steak and flatten it. Cover stuffing with one or two tablespoons of spaghetti sauce and top with a slice of mozzarella cheese. Sprinkle with Parmesan cheese, cover loosely with foil, and bake at 300° for one hour.

—FROM WILD GAME COOKERY  
BY CAROL VANCE WARY

shot. I was so busy grumbling about "them," why they cut my mountain down, I couldn't see the forest for the cut.

You know something? Even though I don't have a Dall ram with better than three-quarter curl horns, my trophy room is still special. Whadda you say we just kick back and relax, conjure up good images, and measure things by their uniqueness, not in terms of inches, weight, or size. It's not that I wouldn't like to have a real trophy, but to be honest, I'm satisfied with what's here right now.

Remember those woodies we saw last season squirrel hunting? I was thinking . . .



PGC Biologist Arnie Hayden, otter specialist Tom Serfass, and Jack Henry of the Pine Creek Anglers and Conservationists carefully carry an otter to a release site along Pine Creek in Tioga County.

## Bringing Back the Otters

By Bob Mitchell

Assistant Editor  
GAME NEWS

**R**IVER OTTERS have received a great deal of attention over the past decade from the Game Commission and wildlife specialists from East Stroudsburg and Penn State Universities. A great deal of this attention centered around the Poconos, the only place in the state where otters currently thrive, but all along, research efforts have been directed toward ultimately expanding the range of the river otters here. Today, Pennsylvania's river otters are relatively well understood, safe and reliable trap and transfer techniques have been developed, and the feasibility of this technique to reestablish river

otters in suitable habitat has been demonstrated.

River otters are members of the weasel family, *Mustelidae*, a group of aggressive carnivores which also includes minks, pine martens, badgers, ferrets and, among others, skunks. Unlike most of its relatives, the river otter is particularly sociable and intelligent. Their camaraderie, acrobatic swimming and sliding skills, and playful antics make them popular zoo attractions for children and adults.

Otters are generally dark brown, but can vary from black to pale yellow-brown. Males are larger than females.



They weigh up to 30 pounds or so, and may reach over four feet in length, including a 12- to 20-inch tail which the otter uses as a rudder while swimming and for support on land.

Their young are born in March and April. Litters range from one to six, two or three is average. Their eyes open at five weeks of age, at which time they become active and playful. At about three months of age pups are mature enough to leave their den. They reach adult size in the fall, but don't attain sexual maturity until two years of age.

River otters used to be found along waterways throughout Pennsylvania. Based on old reports, they were very abundant in what is now Philadelphia. Toward the end of the 19th century, when the forests were cut and industries grew, many waterways became polluted and uninhabitable. This, coupled with unregulated trapping, eliminated this valuable furbearer in much of the state.

Game Commission records indicate only 12 otters were trapped in the state from 1949 through 1951 (average price for a pelt during this period was \$15). In 1952, the agency closed the trapping season on the otter to protect the few remaining here. It has remained closed ever since.

Despite this protection, our state's only viable population is found in the northeast. In the mid '70s researchers began studying river otters. A questionnaire survey of district game protectors and other natural resource professionals indicated roughly 400 otters were then living in the state. Ninety percent of these were in the Poconos, primarily in Pike, Wayne and Monroe counties. After determining the animal's range and abundance in Pennsylvania, researchers began studying their habits and the habitats in which they live. In addition to obtaining answers to these fundamental questions, a reintroduction plan was developed, along with capture and handling techniques.

River otters have adapted well to the areas around the popular Pocono resorts and the nearly impenetrable



**THIS PROJECT** is being funded largely with Working Together for Wildlife funds, which come from the sales of patches, decals and fine art prints. The river otter was this program's featured species in 1983.

swamps characteristics of the northeast. These areas also provide more sanctuary from human disturbance, particularly from trappers, than any other region in the state.

Although this population remains viable, a combination of social and environmental factors is preventing the population from naturally expanding and growing. The numbers taken accidentally during beaver trapping seasons are thought to keep otter numbers from growing, and developed agricultural and metropolitan areas surrounding the Poconos are acting as ecological barriers, preventing otters from expanding their range. In addition, diminishing water quality in the lower end of the Delaware further discourages these animals from moving south.

Otters are the most aquatic members of the weasel family. Thus, it's not surprising that their diet primarily consists of aquatic animals. More specifically, specialists from East Stroudsburg analyzed the contents of several hundred otter scats to determine the animal's food habits. Fish and crayfish were the two most common items found, occurring, respectively, in 93 and 43 percent of the analyzed scats. Amphibians,

aquatic insects, small mammals and birds, and molluscs followed in order of importance.

Crayfish, amphibians and insects are more important in summer than in winter. They occurred in 62, 16 and 10 percent, respectively, of summer scats. Fish, meanwhile, dropped to 84 percent in summer. Crayfish remains were found in 28 percent of the scats collected in winter, however, while fish jumped up to over 95 percent.

### Kinds of Fish

Analysis of fish scales in the scats corroborated earlier studies which indicated the kinds of fish taken by otters is related to their abundance and swimming abilities. Even in streams where stocked trout were the most abundant prey available, sunfishes and suckers were more commonly preyed upon. In no instance has predation by river otters been found to threaten game fish populations. In fact, cases have been recorded in which game fish populations actually improved after river otters were introduced and lowered sunfish populations.

It took many years to develop acceptable live trapping techniques. Otters are extremely powerful, and may injure

**AFTER YEARS of research and preparation a major milestone was reached when river otters were actually released into waterways where they had been nonexistent for decades.**



themselves trying to escape from a trap. Developing live trapping techniques that will hold otters and at the same time protect them against injury took years. Researchers finally settled on Hancock live traps and modified padded 1.5 coil spring traps.

In searching for potential reintroduction sites, various factors were considered. Water quality and an adequate fisheries resources to sustain otters were, of course necessary prerequisites. Land use and recreational uses were major considerations. Sites in or near state parks received top priority because these public lands will always be managed largely for wildlife, human access can be controlled, and in these areas a large number of outdoor enthusiasts will have an opportunity to enjoy the sight of these wilderness animals.

After consulting with representatives from the Bureau of Parks, the Fish Commission and the Game Commission, a list of acceptable sites was made. Researchers narrowed their search for potential sites to the Pymatuning area, the Clarion and Youghiogheny rivers, and along Kettle, Pine and Loyalsock creeks.

Kettle Creek, in Potter County, was selected as the initial release site. At the end of 1982 four otters, trapped in the Poconos, were released above the Bush Dam. All too quickly, however, it became apparent that trapping pressure was too intense here to justify risking otters at this particular site.

Therefore, the Kettle Creek attempt was aborted and stocking efforts were shifted to Pine Creek, in southwestern Tioga County. This creek runs through "The Grand Canyon of Pennsylvania," in Tioga State Forest. The rugged terrain and limited access around the gorge attract whitewater enthusiasts, fishermen and backpackers. Fortunately for otters, these attributes discourage trapping.

From May 1983 to August 1984, 22 river otters—11 males and 11 females—were released in Pine Creek. Seventeen of these had been purchased from other states where otters are rela-



tively abundant, another was received from Michigan in exchange for some wild turkeys, and four were live trapped in the Poconos.

Radio transmitters were surgically implanted in nine of the first ten otters released. Researchers monitored these on a weekly basis, more often, if possible, during winter, especially during beaver trapping season. Otters either don't bother with or are too large for most furbearer sets, but they are vulnerable to beaver sets.

Otters were usually released in groups of two or three, sometimes singly. Movement data suggest the otters naturally spaced themselves in relation to one another. The first ones released established themselves near the release site. Later releases moved beyond the first areas occupied and set up home ranges. Generally, this leap-frogging continued until, finally, evidence of otters was found 26 miles upstream and 41 miles downstream from the release site. One otter is particularly noted for his movements; he covered 50 miles within 30 days after release.

Analysis of 82 scats collected while the animals were being located support the earlier food habits findings. Fish, primarily suckers and minnows, were the most common prey items, followed by crayfish—which, again, was the most common food item during the summer.

Six otters were tracked from release through winter until the spring thaw. There were only two known deaths. A young male, from Michigan, perished when caught in an ice flow, and a female died in its den, 40 days after release.

Circumstantial evidence indicates at least one otter produced young on Pine Creek. A female, thought to be preg-

**TOM SERFASS, right, and wildlife technicians from East Stroudsburg University kept track of the otters with radio telemetry equipment. This information indicated, among other things, that the 22 otters dispersed over 67 miles of Pine Creek and that the animals are able to adapt to their new surroundings.**



nant at the time of release, spent the following March and April, 1984, in one den 15 miles from her release site. Such behavior is typical of females with newly born young. Although project trackers never saw young, several sportsmen reported seeing a female with young near this den. Then, in mid October, the skinned carcasses of two young otters were found 17 miles downstream from the suspected den. Because of this proximity, and the fact that the remains were of otters less than a year old, they are assumed to be from this litter.

Pine Creek is not scheduled to receive more otters. However, although the radio transmitters are no longer functioning, student interns still scour the banks, searching for tracks, scats



# Elk Herd Remains Stable

**DURING** the survey of the 1985 elk herd—conducted in January, 1986—135 animals were tallied. Among these were 23 adult bulls, 13 spikes, 72 mature cows, 23 calves, and four of undetermined age and sex. The state's elk herd has remained relatively stable over the past five years. During this period, census totals have ranged from the 119 found in 1983 to the 135 found in 1981 and in this most recent survey. Among the 60 people from the



Game Commission, Bureau of Forestry, Penn State University and Hammermill Paper Company who participated in the survey were, left, Commissioner Tom Greenlee, Lieutenant Governor Bill Scranton, Biologist Bill Drake, and PGC Executive Director Pete Duncan. Ten elk are known to have died in 1985; five were killed for crop damage, three illegally, one of winter starvation, and another of unknown causes.



and any other evidence to the otters' whereabouts and well-being.

Two large lakes in Sullivan County, associated with the Loyalsock watershed, are the current release sites. Fourteen otters have been released there so far, and their movements are being monitored with telemetry equipment. These sites were chosen so a comparison between lake and stream habitats can be made.

Early on, a great deal of concern had been voiced over otter stockings. Some fishermen were afraid otters would destroy trout and bass fisheries, and trappers were afraid special regulations would be placed around reintroduction sites and infringe on their trapping privileges.

Those who have been working with the project, most notably Tom Serfass, under the direction of Dr. Larry Rymon of East Stroudsburg University, deserve a great deal of credit for their

efforts in alleviating these concerns. Countless slide presentations were given to local sportsmen's groups and civic organizations, the news media were kept fully informed, and successful attempts were made to get all interested parties involved. All too often, natural resource programs fail because these social aspects are ignored. Such was not the case here. Information and education became major facets of this project, and most of the myths and criticisms have been dispelled.

Unfortunately, because of the small number of otters involved, just a few individuals can seriously jeopardize this fragile effort. The Kettle Creek project was abandoned because of trapping pressure. And the poaching of two pups along Pine Creek serves as a grim reminder that even under the best of conditions these animals just might not be able to withstand the high level of human pressures on public land.

Biologically, there's every indication



that trap and transfer is a sound technique to reestablish river otters. Whether or not otters can survive social pressures such as poaching remains to be seen.

Support for Pennsylvania's river otter reintroduction project has come from several sources. It has received Working Together for Wildlife funds from the Game Commission. The Pennsylvania Trapper's Association and the Woodstream Corporation have backed this project. And for the past two years it

has been a beneficiary of our state's Do Something Wild income tax checkoff for wildlife program.

Establishment of a statewide population large enough to accommodate annual harvests cannot be predicted at this time. The most realistic goal is to get river otters established in more locations around the state, to ensure the otter's well-being here, and to give more people a chance to glimpse this animal gliding through the water and frolicking along the banks.

## *Books in Brief . . .*

(Order from publisher, not from Game Commission)

**The Double Shotgun**, by Don Zutz, New Century Publishers, Inc., 220 Old New Brunswick Rd., Piscataway, NJ 08854, 232 pp., \$19.95. An updated edition to the author's highly acclaimed 1978 first edition. The first eight chapters, covering shooting techniques and historical development, understandably differ little from the original. But from chapter nine on, coverage of new developments and offerings among today's manufacturers around the world and current information on collecting older models make this the most authoritative and up-to-date reference available.

**Grouse Hunter's Guide**, by Dennis Walrod, Stackpole Books, Cameron & Kelker Sts., Harrisburg, PA 17105, 192 pp., \$20.47, delivered. To many, the ruffed grouse is tops among game birds. Grouse thrive in the most inaccessible cover, they present the most challenging of targets, and they're unsurpassed as tablefare. Read here about the sport, the quarry, and all the associated aspects that make hunting ol' ruff unequaled.

**Venison Recipes**, by Bonnie Lutz, Lutz Enterprises, P.O. Box 4403, Reading, Pa. 19606, 31 pp., softbound, \$4.95. "Venison Casserole with Mushrooms," "Woodsmen Venison Cutlet," "Venison Kebabs," and "Deviled Venison" are among over 70 recipes telling how to turn venison into culinary delights. A fine book for those who consider trying new recipes among the joys of deer hunting.

**SAVING SPACE FOR WILDLIFE:** A one-day conference devoted to the loss of fish and wildlife habitat in the state is being held at Millersville University on May 3, from 8 to 4:30. The conference is designed for sportsmen, landowners, legislators, and others who want to learn more about this problem and what can be and is being done about it. Following a morning session featuring a keynote address by Dr. Jay Hair, Executive Vice President of the National Wildlife Federation, will be four concurrent sessions covering Backyard Wildlife, Fishery Habitat, Important Spaces for Wildlife, and Environmental Toxicants and Diseases. The \$10 registration fee covers a buffet luncheon and two coffee breaks. To register, make a check payable to the Pennsylvania Wildlife Federation and send to 2426 North Second St., Harrisburg, PA 17110. Be sure to include your name, address and phone number, and specify which afternoon session you want to attend.





BOB  
SOPCHICK



A LOT OF free advice is bandied about along mountain trails and around camp stoves during the deer seasons. Not all of these exchanges should be considered infallible. There is, for example, the old belief that a deer always drops its tail after being hit. Some years ago, in my fortieth season of hunting whitetails, I personally

with my shivering, made it almost impossible to just remain on the stump, and even less possible to do any accurate shooting. I did manage, however, to empty my carbine of all the cartridges it carried.

The echoes from this flurry of shooting had barely ended before my two partners arrived from their near-

## Follow That Shot

By George L. Harting

learned that this theory is unreliable. Upon the report of my cartridge, the antlerless whitetail sped away at full speed with tail in air. A clean miss, the theory would have dictated, but I followed up my shot with a thorough check and ended up hanging one of my bigger deer on the game pole.

Forty-five seasons of deer hunting experience represents, for me at least, an evolutionary history. I often reflect upon the disaster of my first deer hunt. During the previous summer I had earned sufficient funds to purchase a lever action carbine chambered for the 32 Winchester Special cartridge. It was certainly adequate in the deer woods, but no one had been available to teach me how to shoot it. Another indication of my inexperience was my hunting outfit. I had no insulated clothing so, at safety's expense, I donned my sheepskin coat.

My first morning deer hunting found me shivering on a stump-top perch in a recently lumbered area, cradling a gun I had no prior experience with, and dressed in a coat exactly matching the color of my quarry.

Under these pathetic circumstances a whitetail sporting the finest set of antlers I've ever seen on a live deer presented himself as a target. The excitement of the moment, coupled

by stands to see what all the commotion was about. I detailed for them my experience, and they suggested that we ought to go see if a hit had been scored. Lack of snow made establishing the deer's earlier location difficult, but after milling around awhile, one of the hunters in the party found a red spot on the maple leaf-covered forest floor. His conclusion, however, was that the spotting was inconsequential, and our search was discontinued. I to this day still think a very fine trophy buck might have been wasted that day. My two partners, with all their deer hunting experience, should have known better. How one often wishes for a chance to relive some of life's memorable moments.

### Importance Not Limited

The importance of following up shots is not limited to just big game hunting. It relates to all game species. Consider the following cases.

The opening day of a particular small game season was unusually dull, and field hunting for ringnecks was exchanged for scouring adjacent woodlots. A cottontail was routed from a thicket well ahead of us. It was an ill-advised shot but, probably prompted by the dull morning I had experienced, I took it. The rabbit's course was imme-

diately and radically altered, yet its speed did not diminish. I marked this to be unusual and decided to pursue the creature. After the area was searched I found my game lying motionless within 25 yards of where it had altered its escape route. A shot pellet had struck a vital organ causing almost instant death. Careful observation and follow through put a delicious game dish on the table.

In another example, as I worked a fencerow I approached a den tree where a gray squirrel had eluded me earlier that day. My cautious approach found the young gray vulnerable; his forepart was outside the den as he cautiously surveyed the area before dropping to the ground to feed on the abundant hickory nuts. The distance was conservative and I figured a head shot would catapult the creature from the den. The shot was taken and the bushy-

tail dropped to the ground, but I could not find him. Reluctantly, I went on hunting. But I was still so bothered by this miss that after munching on a sandwich I returned to the area to search some more. I found the gray behind a nearby tree. Its final death struggle had put the carcass on the other side of the fencerow where it was invisible from my former position.

### Follow-Through Technique

Bird hunters, too, can profit from the follow-through technique. One day I was working some high wheat stubble toward a hedgerow that separated the wheat field and a newly seeded field of barley. A ringneck flushed from this junction, and my reaction was panic shooting. I watched, helplessly, with the empty repeater in hand, as the bird flew across the new grain field. I watched in utter disgust until, at about 200 yards, the bird suddenly collapsed and plummeted to the green barley cover, stone dead. It was following the shot, not marksmanship, that put the only piece of game in my bag that afternoon.

Then there was the young jake which responded with repetitious gobbles to the simulated love call of an eager hen. Careless exposure, however, flushed him prematurely and his take-off silhouetted him beautifully against the early morning sky. As my 3-inch 12-gauge magnum roared, the bird folded in mid-air. But, upon hitting the ground, he took off on foot with all the speed and agility of a winged ringneck. Disgust for my performance and thoughts about that wounded bird haunted me throughout the morning. While eating lunch, my partner and I decided to go back — without guns, of course — and search for the bird later in the afternoon. After we reached the area where the action had occurred, we calculated the escape route and carefully scoured the forest floor. Within a half-hour the 15-pound gobbler was retrieved. Success that day was credited to the search rather than to marksmanship.



**I WATCHED, helplessly, with the empty repeater in hand, as the ringneck flew across the new grain field. At about 200 yards, it suddenly collapsed and plummeted to the green barley cover, stone dead.**



Doves are especially notorious for their capacity to continue on in flight without noticeable evidence of an inflicted wound. Many of these fleeing rockets, however, have ended up as delicious dinners for sportsmen who've learned to watch their quarry until out of sight.

Dogs can be extremely valuable hunting partners because of their ability to retrieve game. One afternoon I winged a ringneck and then, trying to match the speed of a greyhound, headed off in hot pursuit. "Let the dog get it," the owner ordered, and in a few moments the bird was delivered to the hand of her master. Since many of us are not in a position to kennel a setter or a beagle, the discipline of following the shot needs to be mastered.

This technique is not reserved for bailing out a hunter's blundering marksmanship. Even perfect shots must frequently be followed by careful searches. It was mid-morning when I spotted the motionless statue-like form

of a 5½-year-old whitetail. This mature individual, wise to the ways of man, had learned to freeze rather than flee. This time, however, she was outwitted. Upon the report of my rifle her flight appeared to be uninterrupted. But 50 yards down her trail I found a speck of frothy blood and became reassured. Not another sign of blood was found, however, between that first sighting and the motionless body of the deer that lay 50 yards beyond. The apparent miss was, in reality, a perfectly placed lung shot.

### Great Teacher

Experience is a great teacher, and through the years one's exposures become an education. How fortunate it was, indeed, that between my first deer hunt and my latest I have gleaned some techniques in the art of following the shot. Keeping alert and following the path of escaping game is a way of avoiding waste and putting weight in the game pouch.

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# 1985 Bear Season Results

By Gary L. Alt  
PGC WILDLIFE BIOLOGIST

## Harvest Size and Location

**A**TOTAL OF 1,029 black bears were harvested during the November 25-26, 1985 season. This is Pennsylvania's third largest bear harvest. The largest, 1,549, occurred in 1984, and the second largest harvest, 1,528, was taken in 1983.

The ten largest county harvests in 1985 were: Lycoming, 126; Clinton, 88; Clearfield, 75; Tioga, 75; Pike, 71; Cameron, 59; Elk, 47; Centre, 46; Bradford, 42, and Monroe, 38. A breakdown of the 1985 harvest, by county, appears as part of Table 1, along with the kills for the previous five years.

The Northeast, Southcentral and Southwest Game Commission Field Regions contributed a greater than average proportion to the statewide harvest, while the Northcentral and Northwest Regions were below average, based on trends from 1949 through 1984 (Table 2).

## New Areas Open

Bedford, Fayette, Somerset and Westmoreland counties, in southwestern Pennsylvania, were open for the first time since 1979. In this area, be-

tween 1949 and 1979 hunters took only 29 bears. This region appeared able to support a larger bear population than existed, and wildlife managers decided to help it increase. Trap and transfer of breeding-age females into the area and closure to hunting occurred from 1980 through 1984. Apparently the population responded favorably, as 22 bears were harvested here in 1985 and only 10 percent of the tagged bears available for harvest was taken. Based on these results, now that the population has built up, we should be able to sustain larger annual harvests in this area than in the past.

## Kill By Day

In the 1985 season, 935 bears (91 percent) were harvested on the first day and only 94 (9 percent) on the second day. This contrasts with previous two-day seasons (1982-84) when 70 to 75 percent of the harvests were taken on the first day (Table 3). The abnormally small harvest on the second day of the 1985 season was probably caused by a disproportionately large reduction in hunting pressure due to inclement weather.

## Hunting Pressure

About 85,000 bear licenses were sold in 1985, a 15 percent decrease from the 100,000 sold in 1984. On a 54.8-mile bear hunting pressure survey route in the Poconos, a reduction of 6 percent in the number of parked cars was recorded for the opening morning of 1985 as compared to 1984.

On the second morning of the 1985 season, the number of cars on the same survey route was down 68 percent from the first morning. This was a slightly greater decrease than those recorded for 1982, 1983, and 1984,

**JIM BRILL of Douglassville was one of Pennsylvania's lucky bear hunters. He took this 300-lb. male while hunting in Pike County.**

PGC Photo by Ed Sherlinski





**Table 1**  
**Pennsylvania bear harvest, by county, 1980-1985**

<b>COUNTY</b>	<b>1980</b>	<b>1981</b>	<b>1982</b>	<b>1983</b>	<b>1984</b>	<b>1985</b>	<b>TOTAL</b>	<b>AVERAGE</b>
Armstrong	*	7	0	0	3	4	14	2
Bedford	*	*	*	*	*	1	1	*
Blair	*	5	2	7	17	6	37	*
Bradford	34	24	14	29	46	42	189	32
Cambria	*	7	12	3	11	6	39	*
Cameron	57	56	22	75	86	59	355	59
Carbon	6	24	10	38	36	23	137	23
Centre	23	28	20	77	56	46	250	42
Clarion	3	1	7	7	7	3	28	5
Clearfield	65	63	24	85	87	75	399	67
Clinton	85	78	49	139	197	88	636	106
Columbia	1	1	0	9	4	1	16	3
Elk	77	51	30	118	65	47	388	65
Forest	15	16	23	50	31	6	141	24
Huntingdon	5	10	12	19	24	20	90	15
Indiana	*	0	8	13	10	7	38	*
Jefferson	14	26	19	34	31	26	150	25
Lackawanna	25	7	4	39	42	32	149	25
Luzerne	21	5	9	14	33	26	108	18
Lycoming	74	84	61	157	148	126	650	108
McKean	76	41	32	107	108	26	390	65
Mifflin	5	10	7	30	20	22	94	16
Monroe	34	42	29	76	60	38	279	47
Pike	66	54	47	78	112	71	428	71
Potter	50	45	38	92	65	30	320	53
Schuylkill	*	*	1	4	3	1	9	*
Snyder	6	3	1	6	8	5	29	5
Somerset	*	*	*	*	*	5	5	*
Sullivan	26	39	6	29	41	24	165	28
Susquehanna	1	1	0	0	3	2	7	1
Tioga	81	46	46	85	99	75	432	72
Union	6	11	9	15	19	16	76	13
Venango	4	1	1	1	4	1	12	2
Warren	21	12	29	54	40	15	171	29
Wayne	17	8	12	28	18	23	106	18
Westmoreland	*	*	*	*	*	16	16	*
Wyoming	23	13	4	10	15	15	80	13
<b>TOTAL</b>	<b>921</b>	<b>819</b>	<b>588</b>	<b>1,528</b>	<b>1,549</b>	<b>1,029</b>	<b>6,434</b>	<b>1,072</b>

\* Astrisk indicates the county was closed to bear hunting for the year indicated. Average annual harvest was not calculated for any county closed any of the years 1980 through 1985.

**Table 2**  
**Percentage of bear harvest taken from each of the Game Commission's six field regions**

<b>REGION</b>	<b>1949-1984</b>		<b>1985</b>
	<b>AVERAGE</b>	<b>RANGE</b>	
Northeast	25	13-36	29
Northcentral	60	46-71	57
Northwest	11	3-20	5
Southwest	1	0-2	4
Southcentral	3	1-7	5
Southeast	0	0-0	0

which were 60, 54, and 64 percent respectively.

At 3 p.m. on opening day of the 1985 season, 75 percent of the hunters were still in the woods, compared to only 18 percent on the second day. Rainy weather on the second day probably was responsible for much of this decrease.

In 1985, 85,000 hunters took 1,029 bears for a ratio of 83 hunters per bear harvested. This compares to 88, 153, 65, and 65 hunters per bear for 1981, 1982, 1983 and 1984, respectively.

### Harvest Rates

During 1985, bear project cooperators captured and tagged 276 different bears that should have been available for hunters. Of these, 40 were taken during the season, yielding a harvest rate of tagged bears of 14.5 percent (Table 5). This was below the 18.8 percent average harvest rate for 1980-84 and the second lowest since 1980 (Table 5). From these data we anticipate the number of bears roaming the Keystone State in 1986 will be greater than in 1985.

**Table 3**  
**Number of bears and percentage of harvest taken on first and second day of bear seasons, 1982-1985**

YEAR	FIRST DAY		SECOND DAY		TOTAL NUMBER
	NUMBER	(PERCENT)	NUMBER	(PERCENT)	
1982	414	(70)	174	(30)	588
1983	1134	(74)	394	(26)	1528
1984	1167	(75)	382	(25)	1549
1985	935	(91)	94	( 9)	1029

**Table 4**  
**Harvest rates, by PGC Field Regions, of bears tagged in Pennsylvania during 1985**

REGION	NUMBER SHOT	NUMBER AVAILABLE	HARVEST RATE
Northeast	25	166	15.1%
Northcentral	8	55	14.5%
Northwest	0	9	—
Southwest	4	40	10.0%
Southcentral	3	6	*
Southeast	0	0	—
Total	40	276	14.5%

\* Harvest rates not calculated if number of tagged bears available was less than 10.

**Table 5**  
**Statewide harvest rates of bears tagged in Pennsylvania during the year of harvest**

YEAR	HARVEST RATE
1980	20.5%
1981	14.7%
1982	13.1%
1983	23.9%
1984	21.9%
1985	14.5%



# Mountain Laurel

## Pennsylvania's State Flower

by Karl J. Power

**M**OUNTAIN LAUREL (*Kalmia latifolia*), an evergreen shrub, is a member of the heath family. Almost everyone in Pennsylvania recognizes the mountain laurel shrub, but many have never seen its flower. Of medium size, it varies from white to purple and blooms between early May and mid-July. After flowers drop, seeds in round capsules hang where the twig clusters form.

In Pennsylvania, this shrub is usually confined to the mountain ranges, but is also found in some rural areas. It grows wild less than a mile from my home in Westmoreland County.

Mountain laurel appears as a gnarled evergreen that commonly reaches 10 feet in height, though on rare occasions it attains 35 feet. This laurel spreads prolifically over old logging roads and trails. Plants grow from root sprouts and from seeds. Laurel wood is very hard and dense, making it excellent for tool handles as well as a hot burning fuel.

The leathery-feeling leaves are probably the most unusual feature of the plant. Two to five inches in length, they stay on the shrub year round. They are attached in clusters on the ends of the twigs. These flat, pointed leaves contain andromedotoxin, a substance poisonous to sheep and other livestock. Although also slightly toxic to white-tailed deer, when other foods are not available they will feed on it, but mountain laurel's nutritional value is low. Under severe winter conditions when deer are forced to eat



Mountain Laurel

mountain laurel and other shrubbery such as junipers and small hemlocks, they often become part of the winter-kill statistics.

Wildlife often seeks refuge in dense mountain laurel thickets. It regularly feeds on acorns, hickory and beech-nuts that fall nearby. Windy days often find wild turkeys feeding in laurel, where it's easy for them to go unseen all day. Attempts to get a load of lead shot through thick laurel at a wild turkey are nearly impossible. Deer season often finds hunters on watch along the edges of large laurel patches, or in treestands overlooking them. Hunting pressure often sends deer into the dense protective cover. At the same time, impatient hunters often try to approach deer in the laurel. The usual result aids the patient hunter who waits and watches.

Mountain laurel is a symbolic part of Pennsylvania's outdoors. This abundant resident of Penn's Woods is both beautiful and poisonous. And it fills an important niche in Pennsylvania's woodlands.

# THE ENGLISH POINTER

By Dennis Manuel

I LET THE gangly legged five-month-old pointer puppy run free for the first time since I had bought her three weeks earlier. Everyone had advised me not to get an English pointer, but I had to have a dog that pointed and looked like he'd stepped out of an old print or a dulled sepia photograph. So I took a chance. I bought Tasha from a man whose dogs had had two litters within days of each other. He had to get rid of some or go nuts. Tasha was of Elhew breeding, and at the time I could hardly afford such a dog, but the man let her go at a good price. I was heady with the fact that I now owned the raw material for the classiest gun dog a hunter could have.

I let her go on the edge of a series of fields that undulated up a mountainside for half a mile and were then swallowed by a vast expanse of forest. The fields were separated by rows of trees dipping into small gulleys, with broken stone walls here and there. The edge of the last field was clearly visible on the horizon.

Tasha bolted off to my right and ran the edge of the first field for its full length, then crossed its end along the treeline about a hundred yards ahead of me. I didn't try to call or whistle her in. I wanted to see what her natural range was and if she would come around on her own.

Her movement along the back of the field reminded me of a young deer. She covered ground in long graceful strides, head high and tail crackin'. Stories from Nash Buckingham and Burton Spiller filled my mind. But a warning knell sounded as she moved with incredible speed and abandon across the field, and the voices of my friends warning me about the pointer's range sounded in my head.

Tasha hit the far corner of the field and disappeared into the grove of trees that filled a tiny bottom. My hopes dropped. I saw myself chasing a dog for two years and then giving up. But in a few minutes she reappeared, looked around for a second, and then continued down the left side of the field and came around to me, panting, her tail wagging furiously as she accepted the praise and affection I poured upon her.

From then on I worked Tasha as I would any bird dog, keeping in mind that the more birds she found close to me the more she would associate me with birds, and therefore tend to stay in more. In the house I gave her obedience lessons on a daily basis and in the field I worked her on a line as often as not. I made her obey my every command, but made sure I gave it only when I could enforce it. In return for the love and attention I gave, she became the classiest hunting dog I could ever want.

## My Fault

That was almost fifteen years ago. Since then I have owned a pointer that I *did* spend two years chasing and finally gave back to the breeder for a field trial dog. Later I found out that she didn't even make it there. She became a runaway, or a bolter. But looking back on how I trained her I can begin to understand why. I was overconfident after Tasha and made the mistake of letting Heather run free through the fields. I could always bring her in, I thought. Well, I couldn't, and it was my fault. What I had developed with Tasha, a rapport and an under-





standing, by always working with her, living with her, going through the basic commands over and over again and making her feel that she belonged to me, I had failed to develop with Heather.

Since then a lot of things have happened to pointers. The inception of the NSTRA (National Shoot To Retrieve Association) and the reappearance of walking dog trials are two happenings in the competitive field trial world which demand close working, classy dogs. And then there is the one big factor—that there just isn't the land to hunt wide running dogs on. This has been known for years, and it was largely for this reason that the continental breeds became so popular.

Pointers were not always the big, fast, wide-going dogs we see today. In 1910, George Bird Grinnel wrote in *American Game-Bird Shooting*: "As a breed, the pointer does not display the fire, endurance and sharp quickness in his bird work that the setter does, and so is greatly handicapped in field-trial competition."

Fifty-four years later, Jeff Griffen said something very different about pointers in *Hunting Dogs of America*: "He will hunt until he drops, he will cover more ground, find more birds and do it more dramatically than any other pointing breed today. Best proof of this is that he holds the world's record for finding birds under judicial observation—twenty-six contacts in three hours by Wayriel Allegheny Sport in the 1958 National Championship."

### Breed Can Change

These two gentlemen have proven something else about pointers that is often overlooked. The breed can change according to what's demanded of it. What has been instilled in the pointer over the years is fire and class, the latter being a confusing term which I will attempt to explain as simply as possible. Class is the way a dog moves while running and his character while handling game. He must move with grace and speed and handle game with deftness and authority. "High on both ends" is a common phrase meaning that the

dog points with a high head and a 12 o'clock tail. The 12 o'clock tail is considered almost necessary in the definition of class for field trial dogs. For the hunter, anything from a 9 o'clock to a 12 o'clock tail is fine, provided the dog has the other qualities.

A lot of hunters today dream of having the perfect hunting dog that personifies the American hunting tradition of the last hundred years. There are those of us who would rather have a dog point one bird in a day's hunt than ten birds, provided the bird was pointed in a blaze of glory, with autumn colors splashed all around and the moment itself so tense, so sudden, that it is forever emblazoned in our memory, to be conjured up at the slightest suggestion of autumnal foliage and bird dogs. Some of us live for that moment, work for that moment, and some of us are rewarded. It's becoming more and more possible for such moments to occur, and English pointers are more often than not filling the bill.

Recently I went to visit Henry Caruso Jr., a resident of Mt. Pleasant, Pa. Henry is a professional dog trainer who works the major circuit with a string of setters and pointers. He also trains dogs for hunters. His father was

a dog trainer, he's a dog trainer, and I wouldn't be surprised if one of his sons became a dog trainer. Henry has trained so many pointers he lost count a number of years ago. My main reason for visiting Henry was to find out from an experienced pointer man how a hunter, not a trialer, should go about getting an English pointer, and what he felt were some of the reasons so many novice trainers have difficulty handling pointers.

Henry feels most novice trainers don't give their dogs enough obedience training at a young age. If you don't want a pointer to range too far, he should be brought under control from the very beginning. Constant bird work close in, on a line and off a line, and constant obedience work are important factors. Henry does not feel a particular strain of pointers is better suited for the hunter, although he does agree that Elhew pointers are usually a good choice. I asked Henry a few direct questions which I thought would interest the hunter.

### Questions & Answers

Question—At what age do most pointers begin holding wild game?

Answer—At nine months, provided the dog is given enough bird work and has chased enough birds so that his natural pointing instinct is evident. Then teach him whoa, and by nine months a good pointer should be able to handle wild game.

Question—Aside from class, do you feel there is an advantage to owning a fast moving dog like the pointer?

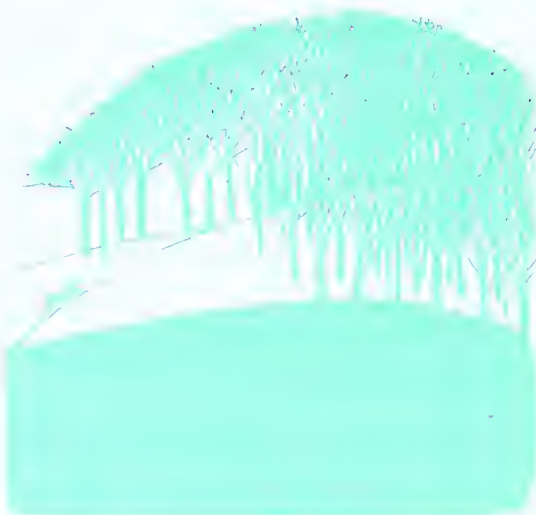
Answer—Yes. A fast moving dog hits his game quickly and the bird tends to freeze rather than run. This is especially true with pheasants.

Question—What do you consider good hunting range for a dog?

Answer—For a foot hunting dog I would say 50 to 75 yards in the open and 40 to 50 yards in the woods. You don't want a pointing dog too close or you might as well flush the bird yourself and forget about having a dog.

I watched Henry work some of his

**I HAVE** owned a pointer that I did spend two years chasing and finally gave back to the breeder for a field trial dog. She didn't even make it there.





field trial dogs and was amazed to see them all hunting at a comfortable foot hunting range. Of course, Henry is a very experienced pointer man and he has a certain ability a good professional trainer must have to succeed—the ability to read a dog. He can frequently anticipate a dog's actions and take steps to prevent a bad habit from forming.

From my experience I gleaned some things that those of us who haven't trained a hundred pointers should remember. Pointers are fast dogs, sometimes so fast that it frightens us and we think the dog is out of control. He isn't, he's just fast and we shouldn't let that frighten us. Let the dog have his speed, just worry about control. Once he's bumped enough birds he'll learn how to keep his distance regardless of how fast he approaches the bird. A slow moving dog can bump as many birds as a fast moving dog if he doesn't keep his distance. Pointers are athletes and are so gung-ho to hunt that before every training session they should be given a few minutes to get the excess steam out of their systems. And the last thing to remember, which I've said before but cannot be stressed enough, is start their obedience training early, spend time with them, and show them that hunting is a joint effort and it's teamwork that gets the birds.

### Things to Remember

A couple of things should be remembered when buying a pointer pup. Ask to see the parents work. Offer to pay for the birds, of course, but make sure you see at least one of the parents work off a line. Watch how he handles and responds to the handler. Watch how he moves and handles his game. If you like what you see, buy a pup. If not, go elsewhere. Shop around and don't be intimidated by the breeder. Most gun dog trainers are honest, hard-working men, but there are a few pure salesmen out there. Just as you don't like to be pushed into buying something at a store, don't be pushed into buying a pup either. Use your own judgement.



**POINTERS** aren't for everyone. But if you want class in a dog, that moment of glory in the field, then get one. You'll have a dog that will make every minute in the field a thrill.

A very good book to use when training pointers is Bob Wehle's *Wing & Shot*. The one thing I don't agree with in his book is force breaking a dog to retrieve. Start your pointer retrieving wings in the house and pigeons in the backyard and you shouldn't have any trouble with retrieving. Tasha was a whiz at retrieving, but I started her young and kept at it.

The big thing to remember about pointers is that they're strong, powerful, high-strung athletes. Not for everyone. But if you decide you want that class in a dog, that moment of glory in the field, then get one. Don't be afraid of the speed and the desire, enjoy it and guide it. You'll end up with a dog that will make every minute in the field a pulsating thrill. Even if you have one of those days when game is scarce, the leaves have fallen, the sky is overcast and it hardly seems worth it all. A pointer will make it worth it. Just watch him move and run. He is the epitome of grace and style and will add a dimension to your hunting days that before you only dreamed about and read about. With a pointer you can live those times.

# Smells Bells

By Joe Kosack

**O**DORS LURE critters to trap sets the way the big bell in a one-room schoolhouse used to lure kids to classes. Doubtless, a lot of them were reluctant, but nevertheless some of them answered its call.

In the same way, all trappers, at one time or another, use baits or lures to attract furbearers. Whether it's an apple on a stick for muskrats or a dash of fox urine on a scent post for canids, most trappers have probed the field of smells. And since most have tried a wide variety, ranging from rancid meat to toothpaste to perfume, they almost inevitably become selective (thus limiting their possibilities).

I, being an irregular type, don't reduce my selection; rather, I stay versatile. For instance, when trapping raccoons I like to use aquatic appetizers; for fox, fatty substances or fox by-products; and for muskrats, a piece of their favorite root will do just fine.

From these general categories, I branch off. Depending on the weather, I'll use fresh, tainted or rotten bait when trying to attract carnivores. As fish and meat make up 90 percent of a trapper's baits, he should know how each affects furbearers. For example, in warm weather putrid odors will make a fox roll in the foul mess. In extremely cold weather fresh smells won't call critters from a distance (unless they're treated with anti-freeze).

## Universal Bait

Fish is the most universal bait, as it can lure critters as different as muskrats and coyotes. It's probably accepted by so many critters because it's often found in their everyday affairs. Some furbearers go fishing. Others canvass the shores of waterways, hoping to capitalize on a fish that has died from disease, old age or wounds from

a predator. One thing's for sure—furbearers love fish, and trappers in the know take advantage of the attraction.

Fish is easy to obtain and store if you've got the fishing license and a freezer. Personally, I like to "fish and freeze" all of my raccoon bait, collecting it in August and storing it in bags. Remember, though, when packaging it for the freezer always store it in small quantities. Once it's defrosted you've got to use it or find a place where the odor as it decomposes won't offend anybody.

Another good odor obtainable from fish is sun-rendered fish oil. To make it, fill a jar three-quarters full of fish, put a lid on it (so flies don't lay eggs in it), and place in the sun until the contents have devolved into mere skeletons and body liquids. As this decomposing process works, gases form in the container, so you've got to rig an escape outlet or the whole works could blow up. (And if you think that explosion is something, wait until your wife gets a whiff of your splattered brew!)

I poke a hole in the lid and shove a section of quarter-inch hose through to create my gas escape. The free end of the hose is then inserted into a balloon which has a couple of pinholes in it. Finally, the balloon is placed in another jar. If there's gas expansion in the bait jar, the hot air is forced into the balloon. And if the balloon accumulates more gas than it can accommodate, the bubble will burst in the jar enclosing it. This system works fine when you have neighbors who might not find your experiments as rewarding as you do.

Although many trappers use only the fish oil from this brewing process, I like to use all the liquids. First, I siphon the oil from the top of the rendered mess with a large eyedropper. After I've gathered all the oil obtain-



able, I strain the remains and pour it into a plastic squirt bottle. This rank watery liquid is then used to make a scent trail from the animal's travelway to my set. The oil is used at the set.

Processed or canned fish is also good bait. Although I don't like to spend money for something I can normally get for free, there are times when I run out of bait and don't have time to go home and replenish my bait container. In this situation I usually head to the nearest store and buy a few cans of jack mackerel or a bottle of cod liver oil. Both hold their own when it comes to luring critters, and successful results have solidified my confidence in such processed items.

However, if you trap near urban developments, don't use these processed baits. They often lure domestic pets, and no trapper wants to catch these.

Meats also attract carnivorous furbearers. Of course, meats aren't as easy to come by as fish, but a properly zeroed 22 rifle is just as deadly on groundhogs as a worm is to panfish.

Woodchuck flesh is ideal for canine and raccoon trapping. I gather my chucks after they've built up fat on their sides, because the fatty tissue is an additional non-freezing attractor to

foraging furbearers. There's something about groundhogs that carnivores like. Possibly it's because predatory furbearers often happen upon roadkilled chucks during the warm months. Who knows? Just remember that the critters like chuck flesh, and use it.

To prepare groundhog for trapping bait, first remove the entrails. Next, chop the rodent into one-inch cubes. Use every part of the animal in this process except the head, which is discarded. Put the cubes into a clean wide-mouthed glass jar and place in the sun for three days (use the same set-up as for fish oil). The meat becomes tainted in the heat and develops a great odor. In addition, raccoons and foxes apparently find this concoction appealing because the meat becomes more palatable to them.

### Decomposing Action

After the bait has been aged in the sun, the next step is to stop the decomposing action. Do this by adding two cups of borax per gallon of meat. Allow two or three days for the borax to do its job. The mixture is now ready for use.

You might want to spice up your bait by adding an ounce of your favorite lure (or fox urine) to it. Some trappers like to toss in a couple of grasshoppers or add a cup of honey. Whatever. The possibilities are endless when a mad-mixing trapper starts acting like a scientist in his fur shed.

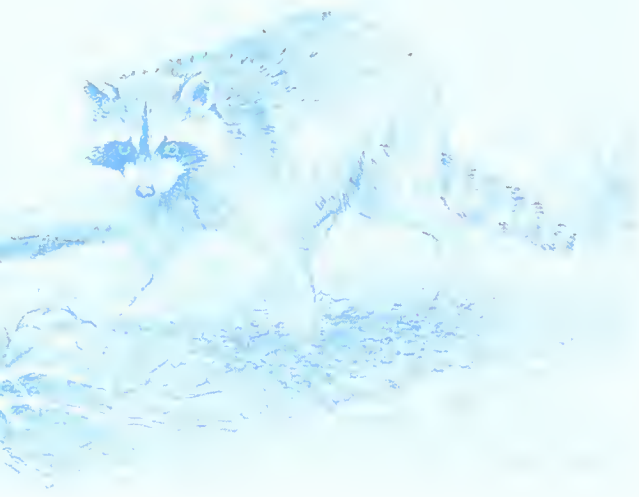
Trappers use four basic types of lures—food, gland, curiosity, and long-distance call—to attract furbearers. Each appeals to furbearers for different reasons, and each is a deadly tool for the trapper who understands its proper use.

First and foremost, follow the manufacturer's instructions when applying a lure. If you use too much, you could offend or repel furbearers. If you get stingy with your applications, animals could walk near the trap site and not get a whiff of the jiff. So by all means use it right or don't bother.

The following lure definitions give

**THERE'S SOMETHING about groundhogs that carnivores like. Possibly it's because predatory furbearers often happen upon roadkilled chucks during the warm months.**





**FISH IS THE most universal bait.** Some furbearers go fishing. Others canvass the shores of waterways, hoping to capitalize on a fish that has died of disease, old age, or wounds from a predator.

the new trapper a working knowledge of what to expect from each type of lure and when to use it:

**Food Lures**—These attract furbearers by tingling their taste buds. They are used with or without bait and vary from fish and meat flavors to plant and fruit extract odors. They can be used any time during the season.

**Gland Lures**—These create sexual excitement in canines. They consist of sex and other glands from the target species and can be used any time during the season. However, they're in their finest hour in late December and January, when foxes start searching for mates.

Trappers should avoid using raccoon gland lure, although it's commercially available, because it will also attract coon hunting dogs. Plenty of other lures will provide the same results as coon gland lure, so show some respect and responsibility in your selection.

**Curiosity Lures**—These foreign odors—ambrette and tonquin musk and fennel oil, to name a few—arouse an inquiring interest in the furbearer sought. They usually don't resemble

anything found in Penn's Woods, but are pleasantly attractive to the critters. Some animals feel compelled to investigate. These lures are a good change of pace in highly competitive areas and can be used any time.

**Long-Distance Call Lures**—These are usually the strongest attractors available. They summon furbearers from extremely long distances (up to a quarter-mile, claim some lure makers). They are intended to pull the target animal into the set area, where another smell, at the set, will lure it to the trap site. The long-distance lure, which usually consists of skunk essence, rancid fish oil or fatty acids, is normally placed about five feet above the trap site on a branch. It can also be used at sets during extremely cold weather.

Animal urines are another good attractor for the carnivores of the state. They offer the furbearer one of the most natural scents of the land, and the animal will usually approach the set without reservations. I use only two types of urine, red fox and mink.

Red fox urine attracts both species of foxes and also raccoons. Apply 6–10 drops to a scent post set or the backstop of a dirt-hole set. Mink urine, on the other hand, is attractive to all carnivores. It can be utilized at flat and dirt-hole sets like fox urine, but at dirt-holes the urine should be squirted into the hole.

Plenty of other smells will ring the dinner bells of the Commonwealth's furbearers, but we don't have space to mention them all. The aforementioned odors, however, will provide any trapper with a good variety of attractors for just about any type of trapline in the state.

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**GAME NEWS**

For a Friend . . .



# young artists page



**Snowshoe Hare  
Dave Garisto  
Harrisburg, PA  
Swatara Junior High School  
Grade 8**

**White-tailed Deer  
Chuck Kelly  
Grove City, PA  
Grove City High School  
Grade 10**





**CLIFF GUINDON** and family arrive for the graduation ceremonies.

# 19th Class

*It takes a lot of hard work at Ross Leffler School of Cosmetology. Months of long days and nights as well as in the classroom. But everyone makes it; this time the young woman started and finished them. For a more detailed*



**COLLEEN SHANNON**, Barry Zaffuto during training.

**ROD ANSELL** receives badge from Director Duncan, above; right, Class Speaker Robert Criswell addresses group, family and friends.





# Graduates

get through the  
education—eight  
y nights, in the field  
lost classes, not  
24 men and one  
l finished. We congratulate  
ort, see page 39.

Photos by Bob Haines



**EXECUTIVE DIRECTOR** Peter S. Duncan congratulates class and welcomes them to the PGC field force.



**Grenoble, John McKellop and**  
various awards earned during



**MIKE DUBAICH** and Stan Norris talk with DGP's Couillard and Hribar, above. Below, Dick Weaver and friends.



**JUDGE** Newton C. Taylor administers oath of office.





# FIELD NOTES



## Logical

**JEFFERSON COUNTY**—Trainee Mike Dubiach and I checked a party of bear hunters on the first day of the season. They said that while looking at a map for a place to hunt, they saw an area near Clear Creek Park named Beartown Rocks. With such a name they figured it was as good as any place to hunt. And it was. They had three bears.—DGP Don Garner, Punxsutawney.



## Costly Misses

**CENTRE COUNTY**—A sportsman stocking pheasants during our inseason stocking this fall received an unsolicited testimonial to the quality of the new pheasants the Game Commission is raising. The sportsman was approached by a hunter who told him we shouldn't stock "that kind of pheasant." The hunter explained that the new birds got into the air so quickly and flew so fast that he couldn't hit them. He complained that he was burning up so much ammunition it was costing him a lot of money.—DGP George Mock, Coburn.

## Worth Repeating

**GREENE COUNTY**—Over the years I have investigated all sorts of hunting accidents, from minor injuries to fatalities. From all these investigations one thing becomes apparent. If the basic rules of firearms safety were followed religiously, there would be almost no hunting accidents at all. For those who haven't attended a hunter education course, or for those who may just have forgotten, the basic rules are: Treat every gun as if it were loaded, keep the muzzle pointed in a safe direction, and be sure of your target and what is beyond it. Know these rules and follow them. The life you save may be your own or that of one you love.—DGP Stephen A. Kleiner, Waynesburg.

## Out Hunting

**WESTMORELAND COUNTY**—Ronald Mancabelli, a barber in Saltsburg, has a unique way of announcing to passersby and would-be customers that he is closed the first day of deer season. Seated on the barber's chair and draped with the barber's cape is a mounted deer head.—DGP Barry K. Moore, Saltsburg.

## Early Indications

**VENANGO COUNTY**—Many hunters discovered the fringe areas surrounding those devastated by tornadoes last May are already providing wildlife food and cover. Many bucks taken the first day came from these areas, and the situation will undoubtedly get better over the next several years.—DGP Leo Yahner, Franklin.



## Volunteer Efforts

**LUZERNE COUNTY**—I would like to thank the 27 volunteer hunter education instructors in this district for their time and dedication in teaching over 700 new hunters this past year. I would like to especially thank the Germania Hose Company, Briarwood Sportsmen, Zambor's Sporting Goods, Plains Township Commissioners and Pat Capitano, Ed Hayes, Rich Andreono and John Bilko for services above the expected. Thanks again! — DGP Edward J. Zindell, Wilkes-Barre.

## Keep Trying

**JUNIATA COUNTY**—After applying for a goose blind at one of the Commission's wildlife management areas for the past 20 years, I finally got lucky. Needless to say, I was excited when I saw the reservation in the mail. But my excitement turned to disappointment when I saw its date—December 14, the first day of antlerless season. I offered to take my Regional Director and Law Enforcement Supervisor along as guests, but there was no way I could convince them I should be in the goose blind rather than patrolling that day. — DGP Tim Marks, Milroy.

## The Boss

**LYCOMING COUNTY**—After receiving a report about the reduction in bear damage complaints throughout the state, and because my own reports were down drastically, I tried to analyze the reasons for the decrease. The only explanation I could come up with was that the tremendous amount of acorns available must have kept bears in the woods. I guess that is what makes wildlife management so interesting. We can plot, plan and implement all we want, but in the end Mother Nature still calls the shots. — DGP Dennis Dusza, Williamsport.

## Getting Closer

**DAUPHIN COUNTY**—Over a year ago I wrote about my lack of big game hunting success, and I'm sad to report this remains so. But I'd like to take this space to congratulate two of my deputies, Ric Schmick and Rusty Feidt, who each killed a black bear this past season. — DGP Scott R. Bills, Millersburg.



## Where Was Little John?

**POTTER COUNTY**—During the past archery season a successful archer dragged his buck to the Lewis Motel along Route 6. Mr. Lewis and the hunter started talking and the conversation led to the hunter's name, which was Robin Hood. Robin quickly produced his license as proof. Sure enough, Robin Hood killed a deer with a bow and arrow in "God's Country." — DGP Ron Clouser, Galeton.

## Joining Together

**VENANGO COUNTY**—Two ospreys were killed in our county last winter. I was pleasantly surprised at the concern demonstrated by sportsmen, law enforcement personnel, and the general public. A reward has been offered for any information, and everyone has done his best to help solve the case. It is comforting to see people concerned and trying to help save our wildlife. — DGP Len Hribar, Oil City.

## Round and Round

Richard King, Somerset, reports a natural food chain in his backyard. Rabbits eating his hedge are chased by a neighborhood cat that is in turn chased by a gray fox which also shares the supper dish of Dick's family dog. On one occasion, the fox was actually observed chasing the cat while it was chasing a rabbit. If that's not nature's food chain in action, I don't know what is. —LMO Barry K. Ray, Sr., Rockwood.



## Double Pleasures

UNION COUNTY—My neighbor Jim Zimmerman is both a hunter and an avid Penn State fan. On opening day of the 1985 turkey season, Penn State was playing the Boston College Eagles. Jim didn't want to miss the game, so he took his radio and ear-phones into the woods. It was a close and thrilling game. During the closing minutes of the fourth quarter, someone broke up a flock of turkeys near Jim. Jim played his call while Paterno called the plays. Soon, a turkey was in sight and so was the end of the ball game. Jim just couldn't turn the radio off. In the midst of the crowd's roar in his ears, Jim raised his gun and took aim. The result—Penn State bagged Boston College just as Jim bagged a nice hen. Apparently it was a bad day for all the "birds." —DGP Bernie Schmader, Millmont.

## Lifesavers

CRAWFORD COUNTY—I really like the fluorescent orange law! Most big game hunters in this area are using hats and vests, and increasing numbers are using complete orange outfits. As a result, hunting accidents have really gone down. —DGP Dave Myers, Linesville.

## Be Certain

National statistics tell us that 14 percent of all hunting accidents involve "shooting a human in mistake for game." During turkey season, however, most accidents involve shooting humans in mistake for turkeys. We had four mistake-for-game shootings in the Northwest Region last fall. Almost all turkey hunters wear camouflage clothing and use turkey calls. These two elements—looking like a turkey and sounding like a turkey—set up the potential for tragedy unless the shooter is absolutely certain his target is a legal bird. Remember, the offenders in these hunting accidents were convinced they were shooting at turkeys. I love to hunt turkey, and, frankly, I am scared at times during turkey season. We wear blaze orange hats when moving from place to place and often hang our hats nearby when we set up. Whether you choose this safety color or not, please be absolutely positive your target is a wild turkey and not another hunter—IES Bob MacWilliams, Franklin.

## New Hotspot

CLARION COUNTY—For the third year in a row I received a bear damage report on the day after bear season. It was especially frustrating this time because we had only one-third the number of bear hunters we've had in previous seasons. Perhaps an advertisement in the major newspapers could entice hunters to take advantage of the bear hunting in this county. They would be surprised at the number of bears available. —DGP Gordon Couillard, Clarion.

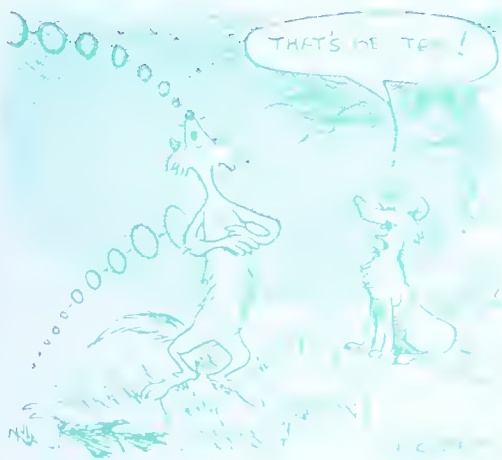


## Doctor's Orders

**SULLIVAN COUNTY**—While manning the PGC exhibit at the Bloomsburg Fair, a lady asked if I would give her a “prescription” to GAME NEWS. I told her I could, and on her three-year subscription I signed my name: B. R. Hambley, G.P. (G.P. for General Practitioner!)—DGP Barry R. Hambley, LaPorte.

## On Tape

A State Trooper from the Reading Barracks reported a Safety Zone violation which had been called in to him. After giving me the basic information, the trooper told me the informant had videotaped the violation while it was in progress. I wonder if the violator was told to say “Cheese.”—FAS Perry A. Hilbert, Cleona.



## Easy Listening

**ARMSTRONG COUNTY**—The coyote population in this county has been increasing for several years, giving many local outdoorsmen a new pastime. Fire stations in the vicinity of Game Lands where the coyotes are found blow their sirens every night at 9 o'clock. Many people enjoy going out at this time to hear the coyotes howl in response. There is a fable about a sea siren, but in this county we have our own “Siren Song.”—DGP B.J. Seth, Worthington.



## Why Not?

**TIOGA COUNTY**—Trainee Richard Bodenhorn was assigned to work with me a few weeks last fall. On night patrol we spent some time parked near a wildlife menagerie. Some of those exotic animals make different noises than Dick is used to. I guess he didn't expect to hear an African lion roaring in the woods around here.—DGP Frank Bernstein, Middlebury Center.

## A Day of Rest

**ADAMS COUNTY**—About three years ago my wife rehabilitated a sick baby squirrel. “Jennifer” was released that fall and took up residence in a wooded area across the road. She was quite tame and we still see her quite frequently in our yard. A few Sundays ago someone decided to take a shot at Jennifer from the window of his pickup. He missed, fortunately, but the attempt had been made. Rain was falling at the time and there was mud everywhere. I was reviewing my Sunday School lesson when I heard the shot. I looked out and saw the truck passing by. In my good three-piece suit and wingtips, I ran through the slop and mud to my state vehicle and was able to apprehend the man. I must have been quite a sight out there in the rain, but it didn't matter. Jennifer deserved a rest on Sunday, the same as everyone else.—DGP Larry Haynes, Gettysburg.



### Behind You

**WESTMORELAND COUNTY**—In the first ten minutes of opening day, GCO Trainee Barry Zaffuto and I watched four ring-necked pheasants and one rabbit elude two groups of hunters without a shot being fired. And, wouldn't you know it, the first group of hunters we checked wanted to know where all the game was. —DGP Matt Hough, Greensburg.

### They're Around

**LUZERNE COUNTY**—We had only preseason stockings of pheasants this year and some hunters complained they could not find birds. However, the last week in November I had a report from State Police Sergeant Donnelly, Bloomsburg, that he had seen three picking grit along the road. And Walter Welsh, Sugarloaf, recently reported seeing two ringnecks walking through a field with five hens. —DGP Robert W. Nolf, Conyng-ham.

### For Furbearers

**BUTLER COUNTY**—This year was the first sportsmen were required to have a furtaker's license. As with any new program, there was some misunderstanding. One young person thought the furtaker's license was the only one he needed to hunt anything that had fur on it. —DGP Larry Heade, Butler.

### Deadly Duel

**MONTGOMERY COUNTY**—Tom Kratz of Colmar found a freshly killed 8-point last November. I issued a permit so he could possess the venison, and made arrangements to pick up the head and hide. Tom phoned the next day and told me the only marks on the entire deer were a broken antler and a deep break in the skull. Because the deer was found at the peak of the rutting season, I feel certain he died of a wound resulting from a fight with another buck. —DGP W. Wasserman, Montgomeryville.

### Bear Figures

At a bear check station in Pike County, I witnessed a good example for our cub law. We checked an adult female that weighed 89 pounds and a male cub that weighed 101 pounds. Even more interesting was a 13-year-old female that may have been the most productive bear on record. During her lifespan she raised 29 cubs—26 of her own and 3 foster cubs. She averaged 3 to 4 cubs per litter and produced 5 on two occasions. One year she raised 7 cubs, 4 of her own and 3 orphans introduced to her by Gary Alt. The movements of her radio-collared daughter, granddaughter, and great granddaughter are now being monitored. —LMO Stephen L. Opet, Tamaqua.

### Expensive

**BLAIR COUNTY**—For the past couple of years, the Game Commission has allowed commonwealth residents to pick up roadkilled deer. Those who do are required to report the kill. They receive a free permit, and they must turn in the head and hide to a game protector after the animal is processed. I've noticed lately that many people are not abiding by these rules. I want to remind them that if apprehended while possessing a deer without a permit, the result is a \$100 penalty. —DGP Don Martin, Hollidaysburg.



# DGP's Receive Assignments

**T**WENTY-FIVE new wildlife conservation officers on February 8 joined the field force of the Pennsylvania Game Commission following graduation from the Ross Leffler School of Conservation at Brockway. They make up the nineteenth class to graduate since the extensive training program was initiated in 1932.

Graduation exercises were held in the auditorium of Brockway Area High School. Dr. Lawrence R. Jahn, Wildlife Management Institute vice president, Washington, D.C., delivered the main address. Oaths of office were administered by Huntingdon County President Judge Newton C. Taylor. Diplomas and commissions were presented by Game Commission Executive Director Peter S. Duncan.

The new officers will assume duties of district game protectors in assigned areas throughout the state. Included in the nineteenth class is the second woman ever to complete the course of instruction.

Members of the class were selected from approximately 5000 applicants following a rigid series of written, oral and physical examinations.

Twelve of the new officers had served previously as deputy game protectors, and two had been deputy waterways conservation officers. Fifteen are married, and five are veterans. Average age

of the graduates is 30 — the youngest 25 and the oldest 35.

Prior to entering the Training School, some of the new officers had been involved in work related to wildlife management, such as forestry and game farm propagation, fisheries technician, wildlife biologist, park rangers, park naturalist and park technician.

Classes began last June. They included 36 weeks of intensive training in biology, land management, Game Law and related studies, legal procedure, police sciences, game management, propagation, public relations, public speaking and physical education, including self-defense. In addition to the academic training, class members worked with experienced field officers during periods of peak activity.

## 350 Square Miles

Each game protector is responsible for the proper execution of all Game Commission programs within an assigned area of about 350 square miles. Land managers are responsible for the multi-county development and management of lands owned or on which the Commission controls wildlife and hunting.

The training school, located on State Game Lands 54, originally was a hunting camp owned by two Pittsburgh lawyers. It was bought by the Game Commission in 1930, and the agency began in-service training for groups of employees at the facility in 1932.

Prior to that time, game protectors were selected through competitive examinations conducted for applicants from the county where a vacancy existed. They were given a badge and Game Law book and were expected to enforce the law and carry out the public relations and related programs of the Game Commission. That system developed excellent, hard-working and dedicated game protectors, but it usually took many years for the average officer



to become thoroughly familiar with the laws and to know the myriad aspects of the position.

In 1932, select officers were sent to the training facility for schooling in specific subjects. This worked so well that the Game Commission developed a formal program for the training of all future officers at the school. On July 2, 1936, the first class of game conservation officers was enrolled at the school, the first of its kind in the world. In February 1937, the first 27 graduates completed their training and were assigned to the field.

The training program gave the new officer a running start, so to speak, although it was recognized that one

must still serve in the field for some time after graduating before becoming thoroughly familiar with the position.

Since the establishment of the school, 421 Pennsylvanians have been graduated as conservation officers. Officers from other states have also completed the course of instruction. The training school is also used for in-service training, workshops and conferences for employees of the Game Commission and other conservation groups.

Photos related to the graduation ceremonies appear on pages 32 and 33. Members of the nineteenth class, along with their hometowns and the counties to which they have been assigned, are listed below:

### Members of Nineteenth Class

Name	Hometown	Assignment
Peter F. Aiken	West Grove	Montour
Rodney S. Ansell	Connelsville	Greene
Richard S. Bodenhorn	Brookville	Elk
James L. Brown	Gillett	Perry
Donald G. Chaybin	Belle Vernon	Jefferson
Robert W. Criswell	Bedford	Crawford
John Denchak	Gordon	Schuylkill
Michael A. Dubaich	Aliquippa	Adams
James W. Egley	Avonmore	Clarion
Timothy M. Grenoble	Mifflinburg	Lehigh
Clifford E. Guindon	Beaver Falls	Somerset
Arthur S. Hamley	Verona	Indiana
Shayne A. Hoachlander	New Bloomfield	Erie
John A. McKellop	Wattsburg	Mercer
Dennis L. Neideigh	Elizabethtown	Westmoreland
Stanley W. Norris	Fairhope	Fayette
Robert L. Prall	Dunmore	Berks
Colleen M. Shannon	West Chester	Clearfield
Richard J. Shire	Philadelphia	Philadelphia
John C. Shutkufski	Lake Ariel	Schuylkill
Steven M. Spangler	York	Harrisburg
Roland J. Trombetto	Corsica	Bedford
Richard F. Weaver	Anita	Cambria
George A. Wilcox	Mansfield	Columbia
Barry S. Zaffuto	Brockway	Warren



# Taxidermy Examination

**A**PPPLICANTS who plan to take the 1986 Pennsylvania taxidermy examination should file applications with district game protectors prior to May 15. Applications are available from district game protectors and from the six regional offices of the Pennsylvania Game Commission.

The 50th annual taxidermy examination will be given at the Game Commission's Southcentral Regional Office at Huntingdon on June 16, 17, 18, and, if necessary, June 19. The examination, which is in two parts, requires half a day to complete.

Completed applications should be filed with the district game protector in the area where the applicant resides. A \$25 nonreturnable fee must accompany the application to help cover the cost of conducting the examination. There is an additional annual fee of \$25 for those who successfully pass the examination and wish to be licensed.

Taxidermists must be sufficiently skilled in their profession so that a person with an irreplaceable trophy can confidently leave it with any commercial taxidermist in Pennsylvania, knowing that the specimen will be cared for properly and returned to the owner as a permanent reminder of the successful hunting or fishing trip.

Anyone who practices taxidermy for profit in Pennsylvania must have a permit issued by the Pennsylvania Game Commission. The permit is issued to persons 18 years of age or older who are residents of Pennsylvania and who pass the examination conducted annually by the Taxidermy Examining Board.

Each applicant must present to the board at the time of the examination five specimens which have been prepared within the past three years. An affidavit that the applicant has personally prepared the specimens must also be presented to the Taxidermy Board. Specimens to be presented must include one antlered whitetail deer head, one small mammal, one upland

game bird, one species of waterfowl, and one fish. Both birds must be mounted with legs and feet visible. All specimens must be found in the wild within the Commonwealth.

The written part of the taxidermy examination will be on taxidermy methods and procedures, with a few questions concerning the game, fish and federal laws, as they might relate to taxidermy. It may be necessary to physically perform some part of the taxidermy process on a selected specimen.

## Judging Criteria for Taxidermy Examination

The Taxidermy Board members will use the following criteria in judging each specimen presented to them for examination:

1. Lifelike in appearance—This will include proportion, muscle structure, setting of the eyes and antlers, proper placement of ears, wings, feet and legs, workmanship around lips and nose and durability of work.

2. Sewing—Seams must not show and must be completely closed. Patching of skin must be of the same color and texture.

3. Whitetail deer head (antlered)—Ears. Paper or plastic liners or other media should be used in ears. Ears must be tight with no drumming or bridging.

4. Restoration of color—Any color used must give a natural appearance. Over-painting and over-waxing are not acceptable.

5. Preservation—Any part subject to deterioration must be adequately preserved. All specimens (especially fish) will be checked for objectionable odors.

6. Cleanliness of specimen—Evidence of grease, dirt, borax, sawdust, etc., on specimen is not acceptable.

7. No novelties acceptable.

8. Support strength—Wires or rods used for support in legs, necks, wings, etc., must be of sufficient strength for their intended use.

# Seedling Sales For Wildlife

**T**HE GAME COMMISSION is again offering seedling packets for sale to persons interested in providing food and cover for wildlife. The \$2 packet contains fifteen seedlings, three each of scotch pine, white spruce, Japanese flowering crabapple, Maackii honeysuckle and Washington hawthorne. These trees and shrubs, grown at the Commission's Howard Nursery, will attract wildlife and also enhance your property. Past experience has shown these packets to be extremely popular, as demand always exceeds our supply; so plan to buy your packets at your earliest convenience. Locations, dates and times of sales known at press time are:

*Butler Co.* Butler Mall, April 18, 5 p.m.–9 p.m., April 19, 10 a.m.–9 p.m., April 20, 12 noon–5 p.m.; *Clearview Mall*, April 18, 5 p.m.–9 p.m., April 19, 10 a.m.–9 p.m., April 20, 12 noon–5 p.m.; *Clarion Co.* Clarion Mall, April 26, 10 a.m.–6 p.m.; *Crawford Co.* Pymatuning Wildlife Museum, April 18, 12 noon–4 p.m., April 19, 10 a.m.–5 p.m., April 20, 10 a.m.–5 p.m.; *Erie Co.* Millcreek Mall, May 2, 6 p.m.–9 p.m., May 3, 12 noon–5 p.m., May 4, 12 noon–5 p.m.; *Forest Co.* Tionesta Super Duper, May 3, noon–6 p.m.; *Lawrence Co.* New Wilmington Boro Municipal Parking Lot, April 18, 5 p.m.–10 p.m., Ellwood-Wampum Rod & Gun Club, April 19, 9 a.m.–5 p.m., McDonald's Restaurant, Route 65, Shenango Township, April 20, 12 noon–7 p.m.; *Venango Co.* Game Commission Northwest Region Office, April 18, 10 a.m.–3 p.m., April 21, 10 a.m.–3 p.m., April 22, 10 a.m.–3 p.m.; *Cranberry Mall*, April 19, 1 p.m.–4 p.m.;

*Washington Co.* Washington Mall, April 19, 10 a.m. *Westmoreland Co.* Game Commission Southwest Region Office, April 19, 10 a.m.–2 p.m.

*Centre Co.* Scotia Range, April 23–27, 9 a.m.–6 p.m. *Howard Nursery*, April 21–25, 8 a.m.–12 noon; *Lycoming Co.* Game Commission Northcentral Regional Office, April 19, 9 a.m.–12 noon; *Potter Co.* Super Duper Store, Galetton, April 19, 9 a.m.–12 noon;

*Adams Co.* Gettysburg Square, April 25, 12 noon–4 p.m., April 26, 9 a.m.–1 p.m.; *Cumberland Co.* MJ Carlisle Mall, April 26, mall open hours, Kings Gap Environmental Education Center, April 22–May 4, 8 a.m.–4 p.m.; *Franklin Co.* Greencastle Environmental Education Center, April 22, 7 p.m.–8:30 p.m., Scotland Mall, Chambersburg, April 18, 6 p.m.–mall closing, April 19, 10 a.m.–5 p.m.; *Huntingdon Co.* Raystown Sport Show, April 25–27, show hours, Game Commission Southcentral Region Office,

April 25, 8 a.m.–4 p.m., April 26, 8 a.m.–12 noon;

*Bradford Co.* On the main streets of Canton, Troy, and Towanda, May 9–10, 10 a.m.; *Carbon Co.* Lehigh Mall, May 9–10, 10 a.m.; *Lackawanna Co.* Viewmont Mall in Scranton, May 2–3, 10 a.m.; *Luzerne Co.* Wyoming Valley Mall in Wilkes-Barre, May 2–3, 10 a.m., Laurel Mall in Hazleton, May 2–3, 10 a.m., Bell Bend Environmental Center in Berwick, May 4, 2 p.m.; *Monroe Co.* Stroud Mall in Stroudsburg, May 2–3, 10 a.m.; *Montour Co.* Montour Preserve in Danville, May 4, 2 p.m.; *Susquehanna Co.* On the Main Street of Hallstead, May 9–10, 10 a.m.; *Wyoming Co.* Route 6 Mall in Tunkhannock, May 9–10, 10 a.m.;

*Berks Co.* Game Commission Southeast Region Office, April 14–18, 8 a.m.–4 p.m. *Chester Co.* Brandywine Valley Association Headquarters, Unionville, April 12, 9 a.m.–2 p.m.; *Dauphin Co.* Game Commission Harrisburg Office, April 14–18, 8 a.m.–4 p.m.; *Lancaster Co.* Ferguson & Hassler's Store, Quarryville, April 18, 5 p.m.–9 p.m., Musser's Store, Buck, April 19, 8 a.m.–2 p.m., Middle Creek Visitor's Center, April 19, 9 a.m.–5 p.m., April 20, 12 noon–5 p.m.; *Montgomery Co.* St. Luke's Lutheran Church, Zieglersville, April 19, 9 a.m.–12 noon; *Northampton Co.* Palmer Mall, April 14–20.

Check local newspapers for sale locations not listed here, and for further information contact the nearest Game Commission Region Office.

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**GAME NEWS**

For a Friend...



## Bobcat Update

We had a brief report in the February issue about a bobcat which was released in the wild after Dr. Kenneth Felix, Erie, repaired both hip sockets which had been damaged when the cat was struck by a motor vehicle. Six months later, this bobcat showed up again. DGP Stanley Norris, then a trainee on field assignment, received a call from a man who had just found a bobcat in one of his traps. He and Deputies Bob Croyle and Bob Gilford investigated. They were surprised to find the bobcat was wearing a Game Commission ear tag. Records identified the animal as the same one which had been operated on by Dr. Felix. The bobcat was in fine shape and was immediately released again. Of even further interest was the fact that when trapped the bobcat was over 50 air miles from its original release point and must have crossed both the Allegheny and Clarion rivers to get there.



### Question

May I hunt within 150 yards of a neighbor's house while I'm on my own property?

### Answer

No. It is unlawful to hunt for, pursue, disturb or otherwise chase any wild animal or bird, or to shoot or discharge any firearms or deadly weapon within one hundred and fifty yards of any occupied building including homes, barns or any other buildings connected therewith without the specific advance permission of the owner or tenant thereof.

## Eastern Futurity

The Eastern Futurity and Derby Championship, the largest and one of the most prestigious beagling events in North America, will be held at the Lebanon County Beagle Club, at Mt. Zion, Pa., May 1-4. Beagles are judged on their performance in the field under American Kennel Club rules. Criteria include trailing, tonguing, intelligence, style and perseverance.

Currently, approximately 450 clubs and thousands of sportsmen are devoted to beagling. These clubs are dedicated to the improvement of the breed, conservation of the outdoors and propagation of wildlife, particularly rabbits. For more information, call 215-926-4575.

### Cover Story

Nick Rosato created "Partners of the Wilderness" to portray the cooperation and comradeship that developed between pioneers and Indians. Early explorers, trappers and settlers learned from the Indians how to survive in the forests. The Indians, in return, benefited from the technology that early arrivals brought with them. A limited edition of 400 16 x 20-inch, top quality signed and numbered prints of "Partners of the Wilderness" is available from Nick Rosato, RD 1, Box 407, Cogan Station, PA 17728, at \$43, delivered.

## Scared? Who, Me?

**M**OST wild animals give way before the human intrusion. The deer bounds off, white tail flagging goodbye, the grouse whirrs skyward, even the mighty black bear stands for just one “woof” before galumphing away after a whiff of Man. That is, that’s the way they react most of the time. It isn’t often that our presence is tolerated, noticed but ignored, and less frequently that we are the ones who are chased. I was, but not by any sort of sharp-fanged, growling beast. I was mugged by a gang, and I do mean gang, of songbirds.

### Bright Eyes & Pert Crest

Titmice to be exact. Those little gray birds with bright eyes and a pert crest that come tamely to feeders. I was minding my own business; in fact, I was engrossed in what I was doing. I was deer hunting. I’d found just the right stand for late afternoon and was immersed in the hunt, watching the crossing for a buck, believing I had successfully blended into the background of the woods.

There was a noise in the branches over my head. It’s just a bird, I thought. He’s really making a racket, though, not the titmouse’s usual cheery note. This one was squawking at me, jumping from limb to limb, jerking its tail in obvious annoyance. Another one joined in, then a couple more, and more, until there were two dozen around me, screeching, flapping, diving at me.

There was no real danger, of course. I was a giant compared to the tiny birds. But they were persistent—and mad. I felt as helpless as Gulliver, and as surrounded. I had been found out, exposed, and the titmice were mobbing me, like blackbirds will a crow, like crows will a hawk or owl. Finally, I could stand the noise no longer. I couldn’t hunt while under attack. “Enough, enough,” I said aloud as I stood up, waving my arms. “I quit, you

win, I’m leaving.” The titmice scattered, continuing their verbal assault from a distance. Perhaps the biggest buck on the mountain crossed through there that day, but it was obvious I was persona non grata in the neighborhood.

Since then, I’ve been backed off logs by porcupines who took it for granted that they were king of the forest, and I’ve retreated to my tent in the face of skunks who appropriated my campsite as their playground. It’s enough to make a person wonder whose world it is anyway.

Even squirrels have given me the heave-ho. One gray in particular insisted on my leaving the area under its den tree. It could have jumped to another tree and made an alternate exit. Instead, it descended the trunk toward me, headfirst, chattering, clicking its teeth, acting far more belligerent than its size said it had a right to be. At last it just sat in the branches, making such a din I couldn’t hunt. It wasn’t squirrel season, so I left.

The red squirrel is infamous for its hunt-spoiling, loud-mouthed tattling, giving a gunner what-for from the tree-tops. If its squeaks, sputters and buzzing could be translated, the result doubtless would be unprintable. Red squirrels are near the top of the list of forest gossips, which includes bluejays, crows and chipmunks. Chippies, with their continual tsk-tsk-tsk scolding are trouble because they pass the news. As a hunter walks through the woods, the chirping moves with him, saying “Beware, intruder here,” all along the way.

Another  
View . . .

by Linda Steiner



In archery season, when I'm clothed head to toe in camouflage, the problem isn't so much that wildlife discovers me but that it doesn't, or that it mistakes me for something else. I've had to holler and wave to stop squirrels one leap away from using me as a springboard to the next tree, and deer mice run across my boot tops and birds alight on my bow limb. One brazen chipmunk jumped on my hat, which, at the time, was still on my head.

### Brown Glove

I wear a brown glove on my bow hand when I archery hunt, and carry a pocket-size monocular. On stand one day, I put my hand to my face to glass a deer I had spotted. The rest of me was hidden in leaf-matching garb. Peering through the lens, I suddenly drew back, startled. The next instant a hawk wheeled in front of me, flaring on wide wings, not a foot from my face. As quickly, it turned and shot away through the forest, threading between the trees on pumping wings. My first thought was, "How great, to see a hawk that close!" Then I realized what had really happened and I sat down and shook.

That hawk had had its eye on me. Well, not on me exactly, but on my chipmunk-brown, chipmunk-size hand that had been resting, chipmunklike, at the edge of a stump. I don't know if it was my reaction to the flicker of movement or the hawk's keen eyesight that averted the collision, but I hated to think of its talons extended toward my face. I have already bought a green glove so there will be no more such mistaken identity.

My husband claims to have twice had wild deer touch and sniff him. Neither was a case of the wrong identification, but rather of no identification and a lot of curiosity. Both times it was in bow season, both times by half-grown fawns. The last time, a little doe snuffled around his boots and pants cuffs while he stood, nerves atingle,



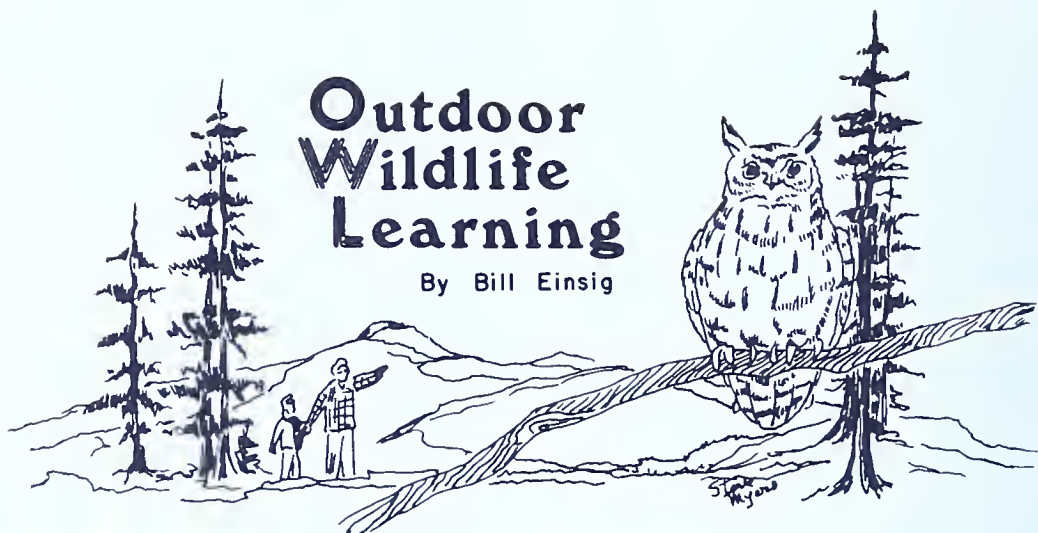
**THE RED SQUIRREL** is infamous for its hunt-spoiling, loud-mouthed tattling. He is near the top of forest gossips.

watching. When the doe turned to investigate what her fawn had found, she knew the score immediately. Her snort made the fawn jump straight up. Bob said he didn't realize he'd jumped, too, but he and the deer hit the ground at the same time and in almost the same spot.

I take his story as true because he was still white when he walked up to me afterward, and because believing a husband promotes marital harmony. The first time a whitetail sniffed him, a friend witnessed the encounter. That friend is a minister, so who's to doubt corroboration like that? Whitetails are supposed to be wary, squirrels should be skittish, but I believe that, species tendencies aside, at any particular time, under a certain set of circumstances, a wild animal will do just what it darn well pleases.

# Outdoor Wildlife Learning

By Bill Einsig



## Urban Woodlands

PENNSYLVANIA is a forest state. Huge tracts of land are covered with beech and maple, oak and hickory, pine, hemlock, birch and scores of other tree species.

Many Pennsylvanians live with these forests on a daily basis. Others of us can only plan to visit them on occasion. We look forward to vacations, hunting trips, or long weekends at the family cabin in the big woods. Mention "forest" to any of us and we picture the big timber where trees outnumber humans on a grand scale.

And yet, all of us live in a forest. On my way to work today, I passed dozens of small stands of trees scattered along the Interstate. The neighborhood I call home has scores of mature trees, and our street is lined with sycamores more than 30 years old. Throughout my town are parks, small woodlots and thousands of shade trees on public land. Certainly, I'm surrounded by a forest and this makes me wonder—while I care for the trees on my own property the best I can, who cares for the public urban forest?

Some cities have hired foresters to look after their trees. These professionals are, most often, advisors who work with public and private agencies that do the actual work. They might advise developers of the best way to include trees in their landscape plans and recommend which tree species are most suitable. They work with municipalities and local businesses to maintain street shade trees and to care for them properly. At some point, these huge old trees may cost too much to maintain or may become weakened or diseased, and

so must be removed. Not only can urban foresters help to coordinate that disposal problem but they can also help plan for replacements that will restore the beauty and value the former trees once provided.

Cities with large parks and public woodlots need professional help. In some cases, such areas can actually be managed to provide firewood and pulpwood with a profit for the city treasury. At the same time, parks should have a variety of tree species that grow and age at different rates. New plantings need to be included in the overall plan so that healthy, vigorous trees will be available when older trees die or are removed.

The right tree in the right place can be a valuable asset. One estimate is that trees can add as much as \$7000 to the value of a home. They can also reduce levels of noise and air pollution. They are important as windbreaks and help to protect buildings from winter's cold and summer's heat. Used properly, they can control runoff and direct more water into the soil to recharge aquifers. They provide homes and food for wildlife species that adapt well to towns. For many city dwellers, squirrels and songbirds that live in the urban forest are the most important wildlife species of all.

We've all seen some of the unfortunate results of poor planning for urban trees. Once beautifully shaded streets have been stripped bare with no thought given to replacements. Trees have been pruned in the wildest patterns. Some look like huge sticks with a burr of stumps where limbs once formed a leafy crown. And we



can all point to some development where mature trees were needlessly removed when they could have been left to add their own value to the new structure.

Not every town can afford its own forester. But every town, and every taxpayer, can become more familiar with the benefits trees bring to the urban area. Recognizing those benefits is the first step toward maintaining them and planning for the future. Our urban forests need sound management too.

## Arbor Day

The value of urban forests has been recognized by some conservationists for many years. Julius Sterling Morton was one of those.

A Nebraska newspaper editor, Morton suggested the idea for a holiday that focused public attention on the value of trees. Under his leadership, on April 10, 1872, Nebraska held the first Arbor Day. A prize was offered to the group or individual who planted the most trees. The idea was so successful that a million new trees were planted on that first Arbor Day.


During the next 16 years, Nebraskans planted 350 million trees. That state today boasts a 200,000-acre national forest planted by its citizens. In addition to being known as The Cornhusker State and the Beef State, Nebraska adopted the title "The Tree Planter State" in 1895.

The idea spread rapidly to other states and even to several foreign countries. Nebraska observes Arbor Day on April 22, Morton's birthday. Most other states, including Pennsylvania, observe the holiday on the last Friday in April.

School children have been an important part of Arbor Day programs. Parent-teacher organizations, outdoor clubs and conservation groups often provide seeds or seedlings for entire classes of youngsters to plant at home. Some groups donate more mature specimen trees to the school and help to plant them on the school grounds.

If done properly, this second approach is far more valuable to the school than the wholesale distribution of seedlings. Over a period of years, the school can acquire a varied collection of tree species that become valuable aids to instruction.

Too many schools are landscaped with only a few species of trees when there is ample room for many. These grow, age, and die at about the same time. Even-



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tually, they are removed and the school, seeing the cost of replacements, opts for the "barren" look and plants more grass instead.

I believe every school in this state should have some pines, spruces and, definitely, at least one hemlock. So much of our state's history is tied to these trees. There should also be oaks and maples, dogwoods and redbuds. I'd like to be able to take kids outside their classrooms and let them feel an ironwood and see the striking bark of a striped maple. There should be an attractive variety, suited to the site, but also useful to teachers and students.

Arbor Day programs can do that for your school and can contribute to the value of your own urban forest. Look around. What needs to be done in your forest?

**I**N APRIL, the somber grays of winter are replaced by the pastel greens of spring. Cock pheasants can be heard crowing and bobwhite quail calling as the warming air breathes new life into the outdoors. To a conservation officer, the month brings trout fishermen to the streams and turkey hunters to the woods at a time of the year when nature is at its finest.

*April 1*—I started the morning by meeting with Dennis Ober, labor foreman with the Game Commission's Food and Cover Corps. Denny had several bundles of seedlings for me to distribute throughout the district. The plants, which are grown at the Commission's Howard Nursery, are provided free to participants in the Farm-Game, Forest-Game, and Safety Zone programs. If properly cared for, they should provide food and cover for wildlife in the years to come.

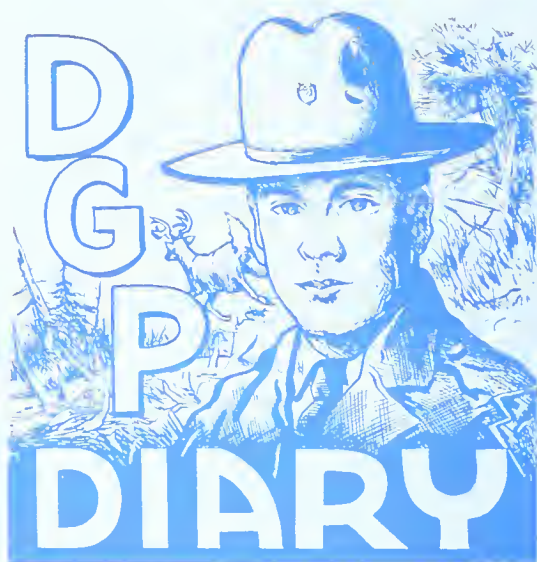
After delivering the seedlings to my cooperators, I returned home and spent the next several hours completing monthly reports.

In the afternoon, I photographed the deer which had been pulled down by two dogs back in March. The pictures will be used as evidence if we have to take the matter before a district justice.

*April 3*—Game Commission personnel, being Civil Service employees, receive an annual job performance evaluation. Today, I attended a meeting with Regional Director C.J. Williams at our Reading office to review and discuss the Commission's new rating form. The revised evaluation more clearly defines the responsibilities of a game protector and should allow a rating officer to better evaluate his subordinates.

In the evening, Deputy Jim Valentino and I met with the defendant in our dog case. We informed him that his dogs had been observed chasing and injuring a deer to an extent where it had to be destroyed. As is oftentimes the case, he couldn't believe his pets would do such a thing. We issued a citation for the violation and informed the defendant how the matter could be resolved.

*April 4*—Received a call this afternoon from a lady in London Grove Township who had found three dead red-tailed hawks in her pasture. During the drive down, a whole host of thoughts raced through my mind as to how and why these



**By Keith Sanford**

**District Game Protector  
Chester County**

birds met their demise. When I arrived at the caller's home, she escorted me to the scene of the killing. Instead of hawks, I found the remains of several domestic turkeys. So much for the "short course" on bird identification.

*April 10*—I received information today that an individual in West Bradford Township was keeping an injured Canada goose in captivity. Although the parties involved might have had good intentions, state and federal law prohibits the possession of live wild migratory birds. I picked up the bird and delivered it to Pat and Nils Sanborn, licensed wildlife rehabilitators in West Chester.

In the afternoon, I assisted Ray Bednarchik, our local waterways conservation officer, with trout stocking along the Big Elk and White Clay creeks.

*April 12*—In the morning, picked up and processed roadkilled deer in the Coatesville and Kennett Township areas. In the afternoon, traveled to our regional office in Reading to talk with Information and Education Supervisor Mike Schmit. We will be conducting a "Planting for Wildlife" seedling sale tomorrow, and I had to pick up the seedlings and the SPORT trailer which will house our display.

*April 13*—Each spring, the Game Commission sells packets of seedlings at a



nominal fee. Each package contains coniferous as well as hardwood trees and shrubs which, upon reaching maturity, provide habitat for wildlife. Today, Deputies Pete Aiken and Jim Valentino and I held our annual sale in southern Chester County. The experience is always enjoyable as it allows us to contact the public in a non-law enforcement manner at a time of the year when wildlife is appreciated for its esthetic rather than consumptive value. At day's end, we had sold approximately 175 packages of seedlings and contacted over one hundred people with various interests in wildlife.

*April 15*—After fruitlessly searching for a roadkilled deer in Highland Township, I spent the remainder of the day in the office researching, writing, and typing an article for my bi-weekly outdoor newspaper column.

*April 16*—Last night, an individual in the Chadds Ford area was outside his home when he saw a vehicle creep to a stop above his driveway. The lights from the car illuminated several deer which were standing in an adjacent field. Suddenly, the night air was shattered by the crack of a rifle. Our witness jumped into his car and pulled up behind the suspect's vehicle, obtaining the license number before it sped off.

Deputy Pete Aiken initially responded to the call and was unable to find evidence

## **First-Time Hunters and Trappers**

All first-time hunters and trappers are reminded they must take a Hunter Education course before they can buy a hunting license or a furtaker's license in Pennsylvania. Each year thousands of students try to get into courses just before the season opens. It is impossible to take care of some of these, so they are disappointed. If you want to hunt or trap this year, take this course immediately. Check the sporting pages of your newspaper, your area sportsmen's club, or with the nearest Game Commission officer for dates and locations of courses.

**Do it now!**

that a deer had been hit. Today at dawn, I canvassed the area again, but was also unsuccessful in finding a fired cartridge case or a dead deer. Since the suspect's vehicle was registered to a Delaware address, I contacted Delaware Conservation Officer Terry Yingling. He agreed to accompany me to Wilmington and assist with the investigation.

We learned that the vehicle was owned by a woman and, without her knowledge, had been borrowed by a male acquaintance whose full name and whereabouts were unknown. Without this vital information, Terry and I held little hope of finding our suspect.

*April 17*—Barry Jones, Land Management Supervisor from our Reading office, Paul Weikel from the Harrisburg office, and I met this morning with representatives from the Pennsylvania Department of Environmental Resources and the Delaware Division of Fish and Wildlife at the township building in London Britain Township.

A large tract of land adjacent to White Clay Creek had recently been given to the states of Pennsylvania and Delaware for joint management as a natural area. Our meeting was set up to discuss the feasibility of allowing deer hunting on the Pennsylvania portion of the reserve.

Wildlife managers look at game as a renewable natural resource, a product of the land. If taken in limited amounts at specified times, the resource can produce a harvestable surplus year after year. The area supports a healthy deer herd, so our recommendation was to allow deer hunting, even if only on a limited basis.

Our meeting adjourned with all parties agreeing to further look into the issue before any final decisions were made.

*April 18*—All candidates for the Game Commission's training school must pass a series of written and oral examinations as well as a background and character investigation.

Today, Law Enforcement Supervisor Lowell Bittner and I spent the afternoon meeting and speaking with individuals in the community who could attest to the moral and ethical qualifications of one of the applicants to the 19th class of student officers, Deputy Game Protector Pete Aiken.

In the evening, we met Pete and his wife Sue and discussed the duties and respon-

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sibilities of a conservation officer. Although Pete had been a deputy for close to ten years, we wanted to be sure that both he and his family knew what to expect if he were to become a fulltime employee of the Game Commission.

After leaving the Aikens, Lowell and I went to the State Police Barracks in Avondale. We met with the brothers of the woman whose car had been involved in the attempted deer poaching several nights ago. Unfortunately, they didn't know much about our suspect either, but promised to get in touch with us if and when they learned more.

**April 20**—Deputy game protectors are required to undergo firearms training twice each year. This afternoon, all of the deputies from Chester and Delaware counties came to State Game Lands 182 in Berks County. I ran each through the daylight survival course as well as the shotgun course. The highlight of the training session, however, was the night shoot.

Using only flashlights and the strobes from state vehicles, each deputy fired 36 rounds at distances from 3 to 25 yards. Although most of the scores were low, it was an invaluable training experience in that it made each officer realize how hard it is to hit a target under dim light conditions. And it is under these circumstances that a conservation officer often works.

**April 22**—Picked up a roadkilled deer in West Chester, then made a trip to SGL 43 in the northern part of the county. I'm hoping our Food and Cover Corps will be able to make some adaptations to the range there, so that it can be used for deputy qualification shoots in the future rather than having to travel all the way to Berks County.

**April 23**—Spent the morning in my office preparing for the hearing which is scheduled for the 26th on the case of the dogs pursuing and injuring a deer. In the evening, Deputy Jim Valentino and I attended a dinner meeting hosted by the Brandywine Gun Club in West Chester.

**April 26**—Deputy Valentino and I presented our dog case this morning in front of District Justice Eugene DiFilippo Jr. in Kennett Square. Our witness was not only able to tell the judge in exacting detail what happened on the day in question, but described the dogs, including their names, to perfection. With the district justice's guilty verdict, the law was satisfied, but the deer that those dogs pulled down will never run again.

**April 27 & 29**—With the opening of spring turkey season and some freshly released birds in the district. I found myself patrolling on both mornings. Hunting pressure was light and, from what I saw, there were no gobblers taken.

**April 30**—Patrolled for turkey hunters in the morning and evening, then held a deputy training session at my home.

## Thoughts While Walking

*I love the sound of the horn, at night, in the depth of the woods.*

— Alfred de Vigny



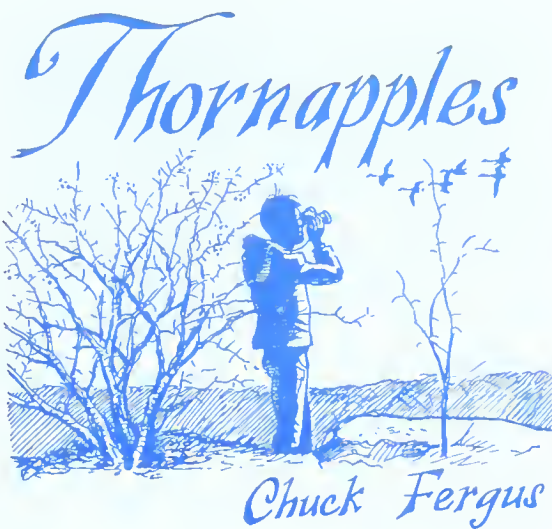
UP THE road, there are two tumble-down foundations, all that is left of the house and barn that Joseph Harpster built when he came home from the war. Today I hunt grouse and deer in the aspen and honeysuckle crowding up in Harpster's fields. His grandson, Wayne, is my neighbor. Wayne is 81 years old. He told me about his grandfather, who fought in the Civil War. Joseph was wounded at Chancellorsville; wounded and captured at Spotsylvania; imprisoned at Andersonville; exchanged; fought again; and, at long last, returned home.

Joseph Harpster served in the 148th Pennsylvania Volunteers. The regiment was composed of ten companies, seven from Centre County and one each from Clarion, Indiana, and Jefferson counties. Over the course of the war, 1,339 men served in the unit. Fifteen percent — 210 — were killed in battle or died of wounds shortly after. Another 187 perished of disease, accident, or imprisonment. Of the 2,047 regiments in the Union Army, the 148th Pennsylvania was fourteenth in percentage of enrollment killed.

It all began with public meetings held after President Lincoln called for volunteers to put down the rebellion. It was 1862, August, when the fields around Centre County are fragrant with new-cut hay and the mountains bulk up soft and green and the katydids have just begun their nighttime singing.

### Volunteers

In Boalsburg, at the academy, Professor Patterson volunteered and most of his students with him. Near State College, 100 signed the roll in the old Swartz Schoolhouse. At Martha Furnace in Bald Eagle Valley, speeches rang to the rafters in the Baptist Church. At first there was lethargy in the German Townships to the south and east, but soon the men stepped forward there. From all over the county they enlisted, men — boys, really; most were 19 to 21 years old, a



few as young as 16 — from farms, lumber camps, furnaces, forges, and stores.

They rode in wagons over rough mountain roads to Lewistown, 30 miles south, the closest depot on the Pennsylvania Railroad. There, for the first time, some of the men saw a train. They took the cars to Harrisburg, where they slept on the floor of the Capitol building. The next day they were sworn in at Camp Curtin.

At first they trained with baseball bats and canes instead of guns. Soon they got uniforms and canteens and mess kits and blankets, both rubber and wool, and 58-caliber Springfield rifles, which were loaded at the muzzle after every shot.

Their entrance to the war was leisurely in the extreme. From Harrisburg the 148th journeyed by train to Cockeysville, Maryland, where they received their first duty: to guard the railroad between Harrisburg and Baltimore. Here the regiment lost its first man. It was a Sunday in September, and Charles Condo, from Millheim, was bathing in Gunpowder Creek when he drowned.

They went into winter camp at Falmouth, Virginia, in rebel territory, with the rest of the Army of the Potomac. The regiment's "Pioneers," ten tall strong men from farms and the lumbering trade, set about digging ex-

cavations for short timber walls which were topped with canvas tents. From *The Story of Our Regiment, or A History of the 148th Pennsylvania Volunteers*: "The most notable men of this group were Washington Watson and William Perry, both over six feet tall. Hair and beards almost snow white, they were remarkable axemen. They would go into the woods, select a tree, cut it down, cut it into logs, split them, and with axes only, hew them into the finest planks, dovetail notch them, and put up the most handsome officers' quarters cabins to be seen in the Army."

### Adept at Scrounging

In camp, the men of the 148th drilled, practiced marksmanship and the bayonet, underwent inspection. Evidently they were adept at scrounging: illicit potatoes, turkeys, bacon, quarters of beef, and sacks of flour frequently came their way. Once they purloined a whole barrel of molasses from a general's commissary, by raising the canvas at the back of the tent, dipping boards into the opened barrel, turning the boards one way and then the other to keep the molasses aboard, and retreating to camp. Such an activ-

ity, one soldier wrote, "was not stealing. It was borrowing from Uncle Sam who contracted to furnish the grub."

On April 16, 1863, they got their first pay since mustering: \$80 apiece, for six months' soldiering. Many sent their money home with the Chaplain, William Stevens of Port Matilda. He carried \$45,000 in a satchel to Centre County, personally delivering the money to families.

Armies did not fight much in the winter back then. It was usually April or May—when the sun shone bright and warm, birds were singing, and trees were putting forth leaves—that the generals sought each other out and the young men died.

May 1, 1863. The 148th marched down a dirt pike six miles west of their winter bivouac. They had printed their names and addresses on the fly-leaves of Bibles and diaries, stamped them on metal badges clipped to their clothing—if they were killed, word might reach families and friends in the North. They tramped down a road lined with playing cards thrown away by men who had gone into battle ahead of them: Cards were sinful instruments that might bring death a trifle nearer. Ahead they heard the roar





of artillery, tattered volleys from muskets. Wounded men straggled past in the opposite direction, dripping blood from heads and fingertips. Wrote one young soldier: "The hair on my head was on end, and cold chills ran over me."

"We were formed in line of battle on a hill about one and a half miles from Chancellorsville," wrote Henry Meyer of Rebersburg. "As we filed into position we saw one of our skirmish lines ascending, at a slow pace, a hill to our left and front, firing as they advanced. We noticed men dropping down killed or wounded, and to us inexperienced soldiers it was magnificent."

The magnificence swiftly faded. Confederate shells came screeching in, and the men dived to the ground. A Union battery behind them opened in reply, and the first man in the regiment was killed: Samuel Holloway, struck by part of a Union shell that exploded as it passed overhead.

The next day, the green Pennsylvanians were advancing through a woods when they met Confederate infantry for the first time. Wrote Lemuel Osman, of State College, then 17 years old: "Henry Sowers was wounded in the side, the blood from his wound running over my haversack. We finally got up without a command, for all of Company C's officers were killed. I was struck with a ramrod" [a stiff wooden stick used to ram a gunpowder charge and a lead ball into a musket's muzzle, and in this instance apparently fired by accident] "which gave me a side-wipe and cut my knapsack in two. Green Carter, of our company, was wounded. I helped him to the rifle pits and he said to me in a low whisper. 'Lem, I can't go any further.' He bled to death."

Wrote Thomas Myton: "We had gone some distance into the woods when about ten or twenty feet in front of me, a white spot came suddenly on the trunk of a tree. Immediately the air seemed full of bullets and one passing through the side of a small tree struck me on the right shoulder, cut-

ting my knapsack strap, bruising the flesh and cutting the skin. I was losing faith in myself because of nervousness and a disposition of my knees to knock together, but now my gun came down steadily, and I was doing good shooting. The distance was very short; not more than forty yards. For rapid firing, I did not return my rammer to the thimbels but laid it by my knee. When I turned my head to put a cap on the nipple of my gun, a rifle ball struck me in the lower part of my nose and through my upper lip. I put my hand to my face, and turned to leave the field. The first step I took, a bullet passed through my left arm above the elbow shattering the bone, and I fell on my left side, fortunately with my shoulders behind a small tree, into which two or three bullets struck and bounced out against my side." Myton made it out of the woods and into a field hospital, where doctors amputated his arm. He was out of the war for good.

### Boalsburg Enlistment

Myton was in Company H—men mostly from Bellefonte, Port Matilda, Snow Shoe, Milesburg. Company G was the Boalsburg enlistment, which included many former students. During the battle of Chancellorsville, at one point G was forced to move quickly under the leadership of Captain James Patterson—their professor—wheeling parallel to the line of the enemy to avoid being caught in an enfilade, angled firing that would rake the length of the column. When the Confederate volley came, it killed three men and wounded eleven. G and three other companies from the 148th, along with troops from New York and New Hampshire, held firm in this small part of the battle. Wrote Patterson: "No men under their first fire ever maintained a more soldierly bearing than did Company G."

The Union side lost at Chancellorsville. The 148th suffered 31 killed, 119 wounded, 14 missing. One of the wounded—"arm; badly"—was Joseph



**MANY OF THE muzzleloading guns picked up after the Battle of Gettysburg contained multiple loads, often from three to ten—and one rifled musket was found with 23 loads in its bore.**

Harpster, my friend Wayne's grandfather.

The army retreated across the Rappahannock. Wrote Henry Meyer, of Rebersburg, "We cleaned our guns, fixed things up generally, rested, and took advantage of the opportunity to secure a good night's *sleep*. From the time we crossed the Rappahannock, April 30th, until our return, May 6th, we had not enjoyed five hours' sound sleep."

The rest proved short. The Confederate Army under General Robert E. Lee, swung north after administering the Chancellorsville thrashing. On June 14, 1863, the 148th Pennsylvania received orders to march. They, too, headed north. The weather was hot, and the men began jettisoning luxuries—woolblankets, overcoats, extra boots. Wrote Henry Meyer; "There are a few things to which a soldier will stick under all circumstances; they are his rubber blanket, his half of a shelter

tent, his Bible, his diary, pen, ink, some paper, and items which are not cumbersome, such as combs, pocket looking glass, small case of thread and needles."

At bivouac on the Occoquan River, the men feasted on wild cherries and mulberries. When they crossed the Potomac into Maryland, they saw fine farms, with large barns and sleek cattle to remind them of home. On June 29, over good roads and in cool weather, the regiment marched a record 35 miles. "At every farmhouse and in every village," Meyer wrote, "the people, old and young, stood in front of their homes with buckets of water and baskets of bread, cakes, and other eatables, which they gave to the troops as they passed."

The young men marched back into Pennsylvania. By July 1, they were just south of Gettysburg.

"Early in the morning of July 2d," wrote Meyer, "after a rigid inspection of our arms, our Corps took a position on a slightly elevated ridge about midway between Cemetery Hill, north, and Little Round Top, south, facing west."

"Our Regiment was called into the fight late in the afternoon, advancing in line of battle up to and into the wheat field," wrote George Walters, a Clarion County native. "We advanced across the field, driving the rebels into the woods beyond. The salvation of our Regiment was in the fact that the rebels' aim was too high, the bullets whizzing over our heads. The wheat was yellow and all trampled to the ground."

### Wheat In the Air

Henry Meyer: "I noticed how the ears of wheat flew in the air all over the field as they were cut off by the enemy's bullets. We reserved our fire because it was useless to shoot at such a distance when the rebels were well protected by a stone fence, trees, and rocks. Our company reached the fence while the men on our right were still in the field, and the rebels continued fir-



ing into the right of our line until we leaped on the wall and took them in the flank. Thick smoke soon covered the scene. I watched the rebels as they moved from tree to tree, and shot at several with steady aim; whether any were hit, I could not tell."

The tide of battle ebbed and flowed across the wheatfield until the day ended. The regiment was withdrawn, behind the breastworks on the slope of Cemetery Ridge, where the men lay down to rest. Wrote Meyer, "All night long we heard the monotonous tramp of moving troops, the low rumble of the wheels of the ambulances, the ammunition and supply trains, and the artillery over the stony roads. The sharp command of the officers, the curses of the teamsters, the groans of the wounded and dying made a medley of weird sounds."

### Hot and Hazy

The next day, July 3, dawned hot and hazy. The morning passed in comparative quiet. Around noon, under a blazing sun, "there was profound silence when the rebels were placing their artillery and forming their lines for the grand attack."

It came after an artillery barrage whose shock and bursting shells caused blood to flow from the ears and noses of men.

George Walters recorded his impressions of the advance by 17,000 Confederate troops under General Pickett.

"Emerging from the woods in three long double lines, they moved out over their works. The long lines of gray moved across the fields toward us in perfect order. Berdan's sharpshooters commenced firing, picking out officers—their globe sighted guns being effective at long range. Soon our artillery opened on them with shells, grape and canister, and when their lines reached the Emmitsburg Road, our infantry commenced firing. Their lines of infantry were now crossing the road. General Armistead, commanding a rebel division, reached our lines at the Bloody Angle on our right, and

"At the beginning of the Civil War, the standard U.S. Infantry firearm was the U.S. Rifled Musket, Caliber 58, Model of 1855. This musket was loaded from the muzzle, using a paper cartridge with a charge of 60 grains of black powder and a hollow base, grooved, and lubricated lead bullet weighing 500 grains. The charge was ignited by a musket cap or with the Maynard tape primer . . .

"The Civil War was fought largely with muzzle-loading weapons. An interesting sidelight showing the nervous tension the troops underwent in using these single-shot weapons during the height of battle is taken from a Report of the Bureau of Ordnance, Navy Department, November 1864, Note B, page 39:

"The official report of the examination of the arms collected upon the battle field of Gettysburg states that of the whole number received (27,574) we found at least 24,000 of these loaded; about one half of these contained two loads each, one fourth from three to ten loads each, and the balance one load each.

"In many of these guns, from two to six balls have been found with only one charge of powder. In some, the balls have been found at the bottom of the bore with the charge of powder on top of the ball. In some, as many as six paper regulation-caliber 58 cartridges have been found, the cartridges having been put in the guns without being torn or broken. Twenty-three loads were found in one Springfield rifle-musket, each loaded in regular order."

From *The History of Winchester Firearms*, by George R. Watrous

with his cap on the top of his sword, leaped the stone wall, followed by his men, and advanced over one hundred feet within our lines before he fell dead. Then came the hand-to-hand conflict."

All along the line, the fighting raged. When the Confederates fell back, they left hundreds captured, thousands wounded and dead. The

point to the right of the 148th Pennsylvania, where Armistead momentarily breached the Union wall, is known today as the "high water mark of the rebellion," the point from which the Confederacy slipped toward defeat.

Thomas Meyer, from Rebersburg, was sergeant to the regiment's Pioneers. They were assigned the next day to help bury the dead. Wrote Meyer: "Faces black as charcoal and bloated out of all human semblance; eyes, cheeks, forehead and nose all one general level of putrid swelling. Bodies were bloated to the full capacity of the uniforms that enclosed them. We would cover our faces tightly with our hands and turn our backs to the breeze and retch and gasp for breath.

### All Positions

"The dead were found in all manner of positions, lying, sitting, isolated, in groups, in heaps." Against a fence sat "a smooth faced soldier, his elbow resting on the second rail, his head resting on his right hand, upright and with the face turned toward us. I went to offer help and found that he was dead."

Continued Meyer: "Citizen visitors in flocks came to see the field and Army. A number asked me why the soldiers talked so very loud to each other; so fierce, when they seemed not angry. I said we are all hard of hearing, nearly deaf, from the awful noise of battle."

After Gettysburg, Lee's army retreated south. They went depleted of men, equipment, and morale. They had seen, in the lush fields of Pennsylvania, in the neat, prosperous farms, in the plenitude of men out-of-arms standing ready to bring in the harvest—that the North had barely scratched the surface of its resources.

For the men of the 148th Pennsyl-

vania Volunteers—who two short months earlier had not yet fired a shot in anger—the war had just begun. They would fight seven more engagements in 1863; 20 battles and skirmishes in 1864; and another seven in 1865. All of the warring would be in Virginia, the most terrible of all at the Wilderness, Po River, and Spotsylvania.

The suffering would be immense: friends and brothers killed, or captured and taken south to die in prison, or maimed with lost limbs or crippling wounds so that they never again would sit a horse or plane a board or chop down a tree or plow a field. For the 148th, the war would finally end at Farmville, Virginia, north of the Appomattox River on April 7, 1865. Two days later and 20 miles to the west, Lee surrendered. The lucky men, Joseph Harpster among them, came home.

Note: All of the quotes are from *A History of the 148th Pennsylvania Volunteers*, J. W. Muffy, Editor. I have condensed some of the passages by leaving out excess words, and slightly reworded others.—CF

*The Wingless Crow* is a collection of thirty-three of Chuck Fergus's "Thornapples" columns. Reviewing the 188-page hardcover book, Blair & Ketchum's *Country Journal* said: "The author walks fencerows and country lanes with the same purpose in mind—to see what's going on in the natural world and to report the news . . . [Fergus] has the patience, the sharp eye, the wide curiosity, and the writing skills to pull it off."

*The Wingless Crow* is available from the Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567. \$10 delivered.



# TEAMWORK

By Keith C. Schuyler

Photos from the Author

**“JOINT ACTION** by a group of people, in which each person subordinates his individual interests and opinions to the unity and efficiency of the group; co-ordinated effort, as of an athletic team.” So states my dog-eared dictionary in defining the word “teamwork,” after it has been found among the pile of old magazines on the floor by my typewriter.

You may not think of archers as a team, unless a tournament expressly announces a team shoot, or there is a series of contests in which the four top scores constitute a team total in competition with other groups. But in such cases you can hardly accept that each individual is subordinating “his or her interests to the unity and efficiency of the group.” Even in team shoots, individual high scores are usually recognized in the various classes. Everybody is out to win, and it is just a happy circumstance when anyone’s individual score happens to be among the top four from the same club and the same team.

Nevertheless, it certainly adds an extra dimension of pleasure to be able to bring recognition to one’s own organization. In trying for top individual honors, your score just might be the one that also puts the home team at the head of the list.

When it comes to bow hunting, a group or gang doesn’t normally think of itself as a team. Participants may come from one club or a number of organizations, or just be a bunch out to hunt together. But since it certainly takes teamwork to succeed, we might well consider such a collection as a team. Here is a situation in which it is necessary for each to subordinate his interests to the unity and efficiency of



**THERE ARE** over 100 member clubs in the PSAA, and archers proudly wear their logos when they represent their home clubs in team shoots.

the group if it is going to succeed with any regularity.

The only difference between team tournament shooting and group hunting, from a competitive standpoint, is in the type of tackle utilized. In target competition, there are definite regulations in regard to sights, bows, arrows, shooting assists, etc. In hunting, tackle is limited only by a few restrictions imposed by the Game Laws. Both endeavors stress sportsmanship and courtesy because others can be affected by any individual’s behavior.

So, what’s this all about?

Accompanying photos represent only a handful of some 100 individual archery clubs in Pennsylvania. And each depicts but one member of one



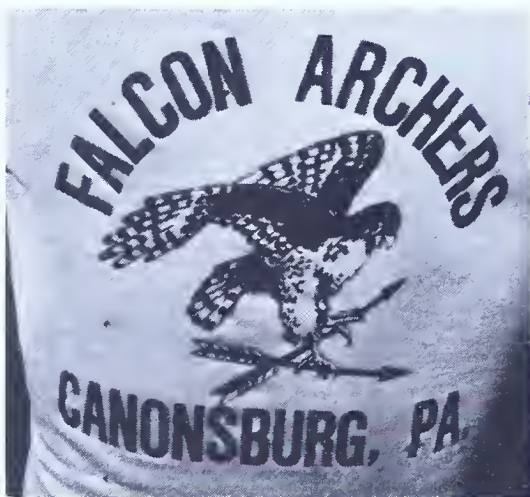
Pennsylvania State Archery Association club, which in itself may have well over 100 individual members. Each wears the club name or emblem with pride. Whether the individual is conscious of it or not, this represents teamwork on the state level. And, this can be carried further, to the national and world levels. Most U.S. clubs have activities which test ability for target shooting — and for hunting.

### Clubs Competed

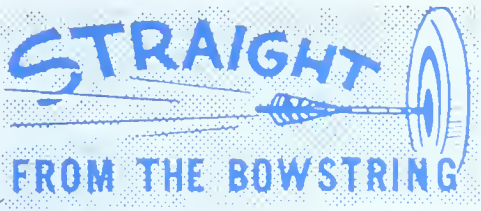
When I was a youngster, many towns and even cities had a number of sportsmen's clubs that competed for members. As units, they worked to improve the outdoors—from raising game and fish to directly helping land-owners. There are still remnants of some of the more active ones; a scattering continue as viable organizations. But many have fallen by the wayside, victims of disinterest and competition for time in the fast pace of today's living. Some have been replaced by private clubs formed by spin-off groups who operate for the benefit of relatively few members with little thought for those outside such organizations. There is nothing wrong with the latter groups, but they should never be a substitute for those which are organized for the common good.

Pennsylvania State Archery Association is one organization, operating as an umbrella for 103 clubs at last count, that upholds the tradition of serving the sport of bow shooting for all. This, in itself, is teamwork on a state level. In fact, recognition of team efforts at tournaments is a feature of all four state contests conducted both indoors and outdoors.

Strangely, you will find nothing in the PSAA's yearbook on rules for team shooting. To bring you up to date, here is a condensation of regulations for all state team shoots which are a part of each tournament: One person acts as captain and must submit fees and information for all participating team members from one club; the club must be a member of the PSAA, as must all







participants. All members of one team must register for one division (bare-bow, freestyle, etc.). Once restricted to eight on a team, now any number may enter, but only the four top scores will be counted. Females may shoot on any women's or men's teams, but males may participate only on men's teams. (A bit of discrimination here?) Awards are given only if at least three teams are entered in one division. Both professional and out-of-state teams are also recognized under the same general rules, except that participants need show only evidence of membership in their own state associations as well as in either National Archery Association or National Field Archery Association. All participants must be bonafide members of their sponsoring clubs for at least 60 days before the tournament.

### Teamwork

Even here teamwork exists. Proposed participants cooperate in getting their registration fees and information to the captain on time and by making sure they are indeed qualified to participate. When the tournament is over, they get their signed score cards to the captain so he can determine his top four scorers. Teamwork also is extended to the officials running the tournament, and sometimes requires that one give up a personal opportunity to compete.

Teamwork in the hunting field again must consider the definition: "subordinates his individual interests and opinions to the unity and efficiency of the group." This is an area where the definition comes on with full force for every member of a hunting party. Here, individual desire to *win* can foul up an otherwise enjoy-

able hunt for most of the group. A captain of such a group needs the continued cooperation of all members.

For example, if the captain requests that drivers move, "Slow and easy," just one hunter can really mess things up for the rest. If he hurries, he might send deer running through the standers, fouling up a chance to provide good shooting. Or perhaps the same character sees a deer. Instead of maintaining the integrity of the drive, he follows it wherever it goes, rather than pushing it through so that someone else might have a chance to score. Or other drivers, seeing him going a different direction, might try to line up with him, which would throw the entire drive out of kilter.

### Favorable Locations

The captain will station standers at what he considers to be favorable locations. If one of them decides to move, this will create a hole in a well-planned line. It can also be a problem for adjoining standers who think they know where their companions on either side are located. This can be dangerous in early October, when foliage is heavy and visibility is more restricted than after leaf fall.

And there are always those who don't listen and become lost, to spoil much of a day for the more attentive. Even worse, there is the occasional oddball who leaves the group for a TV show or to wash his dog without informing those who might spend a large part of the day looking for him.

A hunting captain has a tough job if he does it right. In addition to the responsibility of providing a good hunt, he works harder than anyone else in the party to set up each drive.

Teamwork. When it is practiced by all, it can mean the difference between an archery event that will be long remembered with pleasure and one that is best forgotten. It is most likely to be encountered among those who wear with pride the badge of their archery association.

They belong.



**BLAIR HOOKS likes the M88 Winchester chambered for the potent 284 cartridge, but the rifle is no longer made and only an occasional custom rifle is chambered for this load now.**

## Gone But Not Forgotten

**By Don Lewis**

**Photos by Helen Lewis**

**“I JUST BOUGHT** a Model 88 Winchester chambered for the 284 cartridge. How about giving me a rundown on this outfit? Do you think the 308 cartridge would have been a wiser choice? Is there a great deal of difference between the 308 and the 284?”

Time has a way of twisting up facts, but I think this particular phone call took me away from my supper in the late fall of 1963. It really makes no difference when it happened, but I do recall my repair shop had more guns than I could get out. My thoughts then were not on gun models or new cartridge entries.

“I can’t give you much information on the 284 cartridge, as it’s brand new. But the 88 Winchester has been around since 1955, and I feel pretty certain Winchester came out with the new lever action job to handle the 308 cartridge, although they also chambered it for the 243 and 358.”

“Why didn’t they go up to the 30-06?” he cut in. “It seems to me that would have been a better choice than the 308.”

“It’s a matter of action length,” I explained. “Until the 308 cartridge came into existence, a rapid-fire lever action big game rifle was practically out of the question. The action would have to be very long to accommodate cartridges like the 30-06 and 270.”

“Is it true the 308 is equal to the 30-06?”

“Not really. The 308 is about 10 percent shorter than the 30-06 and can’t hold as much powder. Since both cartridges can use the same weight bullet, it’s not possible to get the same velocities. However, with the newer ball powders used by Winchester, the 308 is not far behind the 30-06.”

“Don’t you have any ballistics or data on the 284?”

“All I can tell you about the 284 is it was designed for Winchester’s Model



88 and 100 semiauto rifles. Here again, it's a short cartridge, but Winchester did take several steps to improve its performance."

"What did they do?"

"First, the 284 has a rebated rim which means the rim is smaller than the body of the case. In other words, the rim of the 284 falls into the 30-06 category, but the body diameter comes close to some of the belted magnums. The only drawback I can see is that the heavier bullets will have to be seated very deep to fit in the short magazine of the Model 88, thus reducing powder capacity."

"Is the 284 equal to the 308 Winchester?"

"It's hard to give comparisons. Generally speaking, I think it comes closer to Remington's 280. Some hunters feel it's similar to the 270 Winchester, but I think it has a slight edge over the 270 due to its larger bullet weight selection. I'm sure most 270 owners won't agree with that philosophy, though."

### 284 a Superb Cartridge

Our conversation ran back and forth for a while, but I think the fellow felt the 308 was a more potent cartridge than the 284. Since that phone call almost two and a half decades back, I have gained a great deal of respect for the 284 Winchester cartridge. In fact, my own personal belief is the 284 ranks as a superb whitetail deer cartridge. Since rifle manufacturers are no longer chambering for the 284, there isn't much point in getting involved in the makeup and ballistics of this fine deer cartridge. I do want to point out that the 284 is not superior to the 30-06 or the magnums in power. But it is an excellent cartridge for whitetails. I have had terrific results



**THE 270 Winchester, right, has been an extremely popular cartridge for a half-century, but the 284, left, though fully as good in a ballistic sense, never gained much popularity.**

with factory ammo, and also with various loads using bullets in the 140-grain class.

Getting back to the 308 cartridge, it's interesting to note that this year Remington will offer a 165-grain factory round in this cartridge. It utilizes the same pointed soft point Core-Lokt bullet that has earned an outstanding reputation in Remington's 30-06 loading. This 165-grain 308 load should be a fine medium range choice for this short action cartridge on game up to the size of elk.

The 284 Winchester's lack of success left me a bit perplexed, and I also sensed a loss for the long-range white-tail hunter when the Winchester 264 Magnum was discontinued. Rifles chambered for the big 264 case came on the market in 1959.

The 264 Winchester Magnum is based on the belted 458 Magnum Winchester case. It seems strange that the 264 was the first 6.5mm cartridge produced in America since the 256 Newton arrived in 1913. The 256 (which used a .264 bullet) was a 30-06 case necked down and shortened for the 6.5





**THE 7mm Remington Magnum, left, is the most popular magnum cartridge of all time in the U.S., but its near-twin, the 264 Winchester Magnum, right, never caught on. Why? Who knows for sure?**

bullet. Factory loads were discontinued in the late 1930s. Being about the same length as the 30-06, the 264 works well in standard length actions.

Billed as the ultimate in high velocity and flat trajectory, the 264 Magnum seemed well on its way to becoming a popular hunting cartridge for practically everything from chucks to elk. Unfortunately, the fiddler always gets paid, and the price with the 264 Winchester Magnum was short barrel life and less than top notch accuracy, largely because of mediocre bullets. With the large powder charge and fairly heavy bullets of this cartridge, throat erosion was common. For the long range hunter shooting 50 rounds or less each year, it was an ideal cartridge, but barrel life was extremely short when a lot of shooting was done.

There is still some sentiment for the 264 Winchester Magnum, and Remington recently announced it will produce a limited run of their Model 700 Classic rifles chambered for it in 1986. This new offering will combine the

flat shooting 264 load with the classic straight-comb stock style preferred by a large segment of hunters. It will be built on the standard Model 700 long action with a 24-inch barrel and a 9-inch twist. Barrels will be clean, without iron sights; receivers will of course be drilled and tapped for scope mounts.

Mourning the loss of the 225 Winchester could bring a shadow of doubt about my mentality. After all, the 225 was just another varmint cartridge that bit the dust. Apparently it had nothing spectacular to offer or it wouldn't have faded so quickly. But that's not really the case. In fact, it's seldom the case! Both the 284 and 264 cartridges had plenty to offer, but they lost out, as did the 225, due to lack of consumer interest—not poor design or lack of velocity or power.

As many of you know, I backed the old 220 Swift long after most gun writers had relegated it to the scrap pile. But I'm not going to get into the Swift thing here, except as it relates to the 225.

When Roy Weatherby came out with his 224 Varmintmaster in 1963, the fading Swift was dealt another serious blow from a competitor. Winchester, not wanting to be without a high performance 22 varmint cartridge, introduced the 225 Winchester in 1964.

The new cartridge was described as "semi-rimmed." While it looks more like a rimmed type, it headspaces on the shoulder as do rimless cases.

### Original Loading

Winchester's original loading gave a velocity reading of 3650 with a 55-grain bullet. Handloaders soon learned that near-Swift velocities could be obtained with most 224 bullet weights. Things were looking up for the 225. Rifles would be less expensive than the Weatherby line and, if Winchester produced the cartridge with a variety of 224 bullets, it was expected the 225 would enjoy considerable popularity.



But strange things happen. During the 1950s and early 1960s, a good bit of activity had been going on in the 224 cartridge line. Remington seemed to be leading the field with introductions such as the 222, 222 Magnum and 221. Could the 225 make Winchester a contender again? I believe it could have, for the 225 is an excellent varmint cartridge. But there were dark clouds on the horizon.

I liked the 225 right from the start. As an old wildcatter, the 225 made me think of the 219 Improved Zipper, created by firing a standard Zipper case in an improved chamber. It had a reasonable following in the late '40s and '50s, and the 225 seemed to be a commercial equivalent.

### In the Shade

But despite all the 225 had to offer, Remington's commercial introduction of the 22-250 in 1965 put all other long range varmint cartridges in the shade. Advanced varmint hunters and benchrest shooters had for decades recognized the accuracy of the 22-250, and when it became available as a factory load it didn't take others long to realize the worth of this great cartridge.

But for every gain there is a loss, and because of the 22-250 the 225 Winchester really never got beyond the first rung on the ladder of success. I might mention that its semi-rimmed case is ideal for single shot rifles, and a good single shot heavy barrel varmint is hard to beat. No, the 225 Winchester didn't die from inade-

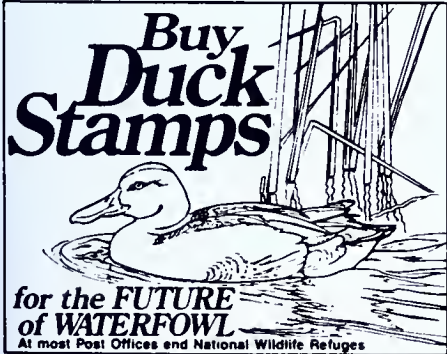


THE 22-250, center, Remington's commercial version of the legendary 22 Varminter, killed any chance the 225 Winchester, left, had for great popularity. Will some new creation like the Cheetah, right, sound the death knell for the 22-250? Probably not . . . but who can be certain?

quacy in any sense; it just came along several years too late.

I have touched on one rifle and three cartridges that have died in the war of sales and profits. All had the requisites needed by a hunter. Probably the Model 88's action design contributed to its downfall. I wouldn't be honest if I said it was an easy action to operate. From the dozens I shot on my sight-in range, I always felt the 88 had a high accuracy potential. But it was tough to load for, especially with bullet weights above 150 grains. More than one hunter found out to his sorrow after leaving camp that his 180-grain handloads were too long for the detachable magazine. I pushed dozens of bullets a little deeper in their cases for frustrated 88 owners.

The 284, 264 and 225 are more than adequate to do the jobs they were designed for. Yet for one reason or another they weren't accepted. If space permitted, I could name a half-dozen more that met the same fate. But in the big picture that's not important. There's no doubt in my mind that some of today's favorites will be tomorrow's victims. That's just the way it is. Well, these three may be gone, but they're not forgotten.



# *In the wind*

bob mitchell



The University of Wyoming and the state's Game and Fish Department are developing a reliable technique for use by wildlife law enforcement officers to determine the specific kinds of meats used in salami, jerky and other cooked sausages. Hunters often arrange to have meat from deer, antelope, elk and moose made into these speciality products, but then fail to pick up the processed meats. Occasionally, these products are sold illegally, but it's been difficult getting successful prosecutions because such techniques have not been available.

**In an effort to increase contributions to Oklahoma's income tax checkoff program, the H&R Block company sponsored a contest in which the tax preparer who signed up the greatest amount of contributions was given a weekend vacation for two at one of the state's resorts.**

President Reagan signed the 1985 Farm Act this past winter. The new act has several provisions that will significantly benefit wildlife. Highly erodible land and wetlands will be protected because landowners who cultivate these fragile habitats will become ineligible to receive government subsidies. Another section will permit some landowners to convert cropland to other uses in return for reductions in their FHA debts. Furthermore, 40 to 45 million acres of highly erodible cropland will be taken out of production for 10 years and planted to perennial cover. Many of the details have yet to be finalized, but the 1985 Farm Act has the potential to become the most significant piece of conservation legislation passed in decades.

One of the largest antelope herds in Wyoming is under intense study. Biologists have trapped and tagged 333 animals; 18 of these were also equipped with radio transmitters, and 44 were collared with blue neck bands. The movements of this herd will be monitored for the next several years, with emphasis on determining migration routes and the selection of winter range sites.

Last spring a hunter from West Germany killed a black bear in Ontario that was determined to be 30 years old, the oldest on record in the province. The bear had been raising havoc with one guide's cabin and eluded dozens of his clients over many years. The bear's skin was over seven feet long and its skull scored 21<sup>5</sup>/<sub>16</sub>.

According to a report by the National Wildlife Federation and the Natural Resources Defense Council, 70 percent of our public rangeland is in unsatisfactory condition. Overgrazing and the lack of funding to develop and maintain rangelands are the two primary reasons.

Hunters in Ontario are being warned not to eat moose livers because some were found to contain high cadmium levels. It's thought acid precipitation is leaching cadmium from bedrock and that it is then taken up by plants which are eaten by moose. Findings were verified in Sweden where a similar problem was discovered a few years ago. It's been suggested that hunters also refrain from eating deer livers until this problem is more fully assessed.

**Of the 120 hunters permitted to hunt elk in Michigan last year, 119 were successful. Taken were 10 calves, 80 cows and 29 bulls, including a new state record, a 15-pointer with an estimated live weight of 996 pounds.**

To learn more about the movements of southern bald eagles, a subspecies that nests in the southern United States, biologists with the Texas Parks and Wildlife Department banded and marked nine eaglets from six nests along the Gulf Coast last spring. By early fall, one of these birds was seen in Montana and another was reported in Arkansas.





*The Wingless Crow*, by Chuck Fergus, is a collection of thirty-three Thornapples columns which have appeared in GAME NEWS. The nearly 200 pages of entertaining reading will appeal to Fergus fans as they reread these selected essays as well as to those who've yet to discover the joys of Thornapples. This top quality hardcover book costs \$10, delivered, and can be ordered from the Pennsylvania Game Commission, Dept AR, P.O. Box 1567, Harrisburg, PA 17105-1567.



## Outdoor Recreation Maps

To help outdoorsmen discover more of what Pennsylvania has to offer, the Game Commission has produced six "Outdoor Recreation Maps." Each multi-color 24 x 36-inch map covers one of the Commission's field regions. Highlighted are Game Lands, State Forests and Parks, and private lands enrolled in the Commission's public access programs. Also depicted are municipalities, roads, waterways, and — giving the map a three-dimensional appearance — 100-foot contour lines. Maps are printed on Tyvek, a tear-resistant, water-repellent material which will withstand years of hard use. Each regional map costs \$4 delivered, and can be ordered from the Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567. If you are not sure of which maps you want, write for a PGC map order form.



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MAY 1986

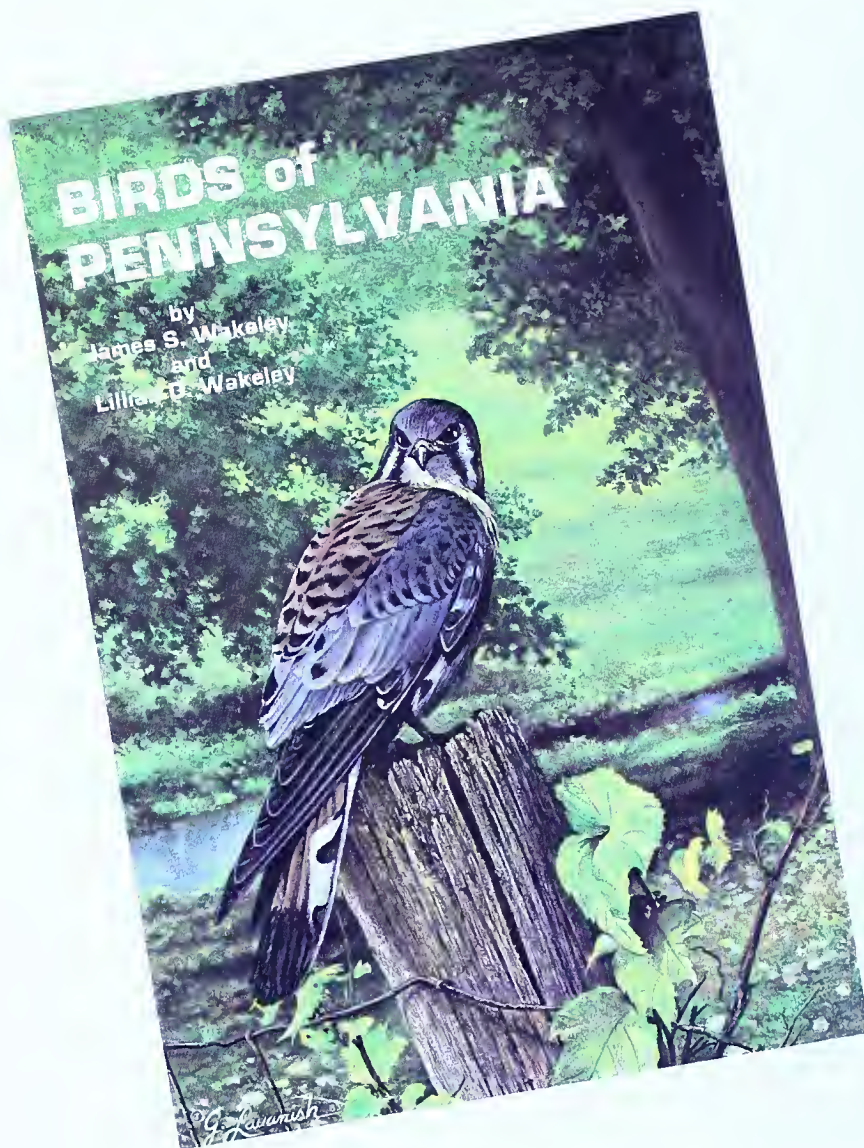
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May 1986  
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*G. Lavanish*





*Birds of Pennsylvania: Natural History and Conservation*, a completely new book by Jim and Lillian Wakeley, includes the most up-to-date information on bird biology and behavior, and the kinds of birds commonly found in the state, arranged according to the type of habitat where they are most likely to be seen. This 214-page hardcover book, supplemented with 40 full-color pages featuring the Game Commission's popular bird charts and previous GAME NEWS covers, is being sold for \$10, delivered.

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## BLACK MARKET UPDATE

**I**N MID-JANUARY 1985, state and federal conservation officers from the Northeast culminated a 28-month undercover investigation of illegal marketing of fish and wildlife.

According to the most recent figures supplied by the Fish and Wildlife Service, 127 persons have been charged, and 108 convicted. Charges are still pending on ten cases, eight were dismissed, and one person was acquitted. Of the convictions, 17 were felony charges and 91 were misdemeanors. None of the violators were convicted on civil charges, indicative of the relative high degree of importance the courts and prosecutors viewed these violations. Sentences have been handed down on 104 violators. In total, \$344,917 in fines were levied, 16.5 years in jail sentences were handed down, 81 years of probation were levied, along with 2394 hours of community service.

During the undercover investigation, more than 275 deer and 1800 pounds of venison were purchased in Pennsylvania. Venison from this state also was sold in Connecticut and Massachusetts. In addition, violations involving eagles, hawks, waterfowl, wild turkeys, pheasants, bears, muskrats, bobcats, otters, fishers, rabbits and raccoons were uncovered.

For these violations involving wildlife, 87 individuals were charged. Of these, 13 have been convicted on felony charges and 70 on misdemeanors. From these convictions a total of \$166,149 in fines, 8.5 years in jail sentences and another 26 years of probation were imposed. Some convicted individuals were ordered to provide a total of 1764 hours of community service.

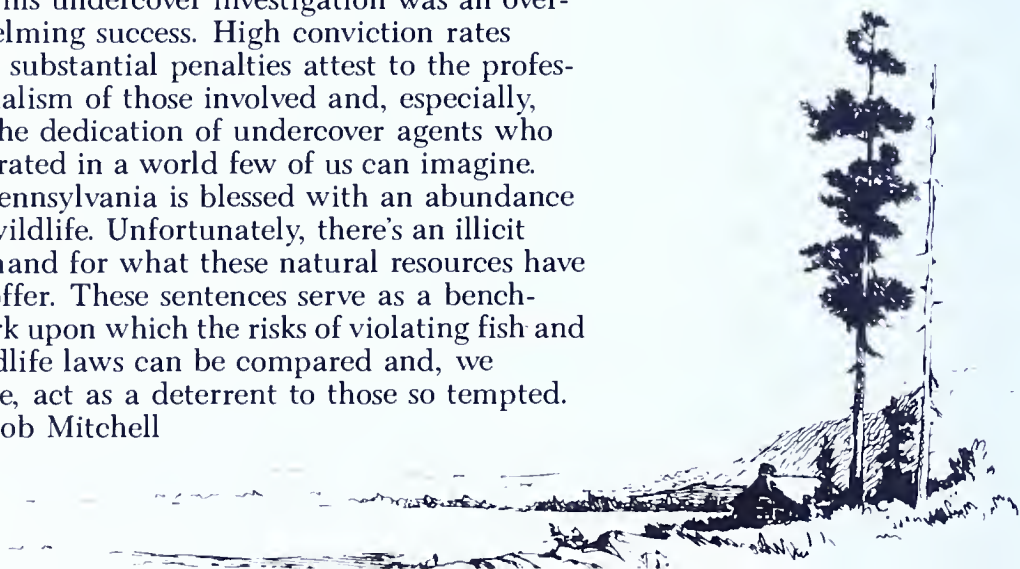
A large part of the investigation involved the theft and sale of game fish, primarily striped bass. During the investigation, officers documented illegal sales of 7000 pounds of striped bass to major markets throughout the Northeast.

Charges were filed against 47 individuals for fish-related charges. Four have been convicted on felony charges, 28 on misdemeanors. Of these, 29 have been sentenced. In total, \$178,768 in fines, eight years of jail sentences, 55.5 years of probation, and 630 hours of community service were levied.

This undercover investigation was an overwhelming success. High conviction rates and substantial penalties attest to the professionalism of those involved and, especially, to the dedication of undercover agents who operated in a world few of us can imagine.

Pennsylvania is blessed with an abundance of wildlife. Unfortunately, there's an illicit demand for what these natural resources have to offer. These sentences serve as a benchmark upon which the risks of violating fish and wildlife laws can be compared and, we hope, act as a deterrent to those so tempted.

—Bob Mitchell







"GOBBBLLE! GOBBBLLE!" He's closer this time. I call. He answers. Closer yet. Time to squinch down against a tree. . . .

## *At Last—Success!*

By Bob Ryan

I'M JOLTED to consciousness by an engine, car doors and the emerging dawn. I grumble to myself about early to bed, early to rise and how I didn't, as I stumble, half-dressed, from the back of my pickup on this cold first day of spring gobbler season.

Two hunters from the car look on curiously as I struggle into my camo clothing. Then they trudge off and up the hill in the direction I'd planned to go. Typical turkey season for me so far—nothing going right. I'm late getting up and now my spot is taken.

Oh, well. I scoop up my shotgun, turkey call and camera and traipse across the field I'd parked in the night before. Any direction I go will be just as unlucky, I figure.

At the far edge of the field I adjust my gear and blend into the semi-

hedgerow. I'll be pret' near invisible to the x-ray eyes of any gobbler I might call in. Now, a simple kee-kee-kee on the ol' box call is in order.

"Gobbbllle!" replies a turkey from afar.

Certainly it won't be this easy, I muse. After all, it's only the first day—indeed, only the first hour—of the season. And heaven knows I've been fooled before. Nine times, as I recollect.

"Gobbbllle! Gobbbllle!"

He's closer this time. I call. He answers. Closer yet! POW! . . . a shot from up on the hill. The two hunters are up there, but the shot seemed father away than the turkey.

"Gobbbllle!"

He's still alive, and closer, too. Time to squinch down against a tree, facing



**I'M PLEASED to report the turkeys—both bearded—have come over the rise and are strutting right along my sight line. Just point and squееееее. . . .**

east into the early rays of the late April sun. A couple of hits on the box call . . .

“Gobbbllle! Gobbbllle!”

There he is and . . . what the . . . there's another one!

“Gobbbllle! Gobbbllle!”

They're making a beeline through the hemlock and oaks, a beeline that will take them to the east of me. Good thing I'm facing that way.

Thank you, Al, I think, as I prop the Remington on my knees. Thank you, Al, as I look into the sun. With glee I remember how a pal o' mine, Al, advised that wary gobblers often advance on call with the sun at their backs. This adds to their advantage. Easy to see, difficult to be seen.

Now . . . there . . . a gobbler's red head passes to the right of my projected line of fire. Then another. No time for a shot . . . must wait . . . wait 'em out . . . let 'em get closer. They'll not trick me again.

Or will they? I can't see them.

They're just over the slight rise, not more than 20 yards away. “Oh, noooooooo,” as Mr. Bill would say. “I don't wanna be the turkey again.”

Did I mention I've ended up at the supermarket poultry case nine times in twelve years of turkey hunting? I did, and it saddens me to no end, you can be sure. Please let me burden you with some woeful tales of such luck.

One time in particular brings the “east theory” to mind. I'd worked on a gobbler for the better part of an hour. For most of that time, that sneaky bird paced back and forth in front of me, just out of sight in a stand of hemlocks. He was, I'm sure, waiting for the root I was sitting on to grow. It wasn't even there when I sat down, but it ever so slowly impaled my wallet. Then that ol' bird worked his way around behind me. I caught just a glimpse of him as he wound my head/neck combo as one might a Gumby Doll's. Finally, he came in with the sun at *our* backs. There he was, not 30 yards away, all fanned out, his wings raking the forest floor. At that point I lost a good portion of my muscular control and floundered around, hoping for a decent, albeit quick, shot. It was not to be. In an instant, the gobbler sucked in his feathers, pulled his wings tight, and raced up the hill—out of range, out of sight.

Well, if it wasn't the sun, then it was the wrong gun.

## 22 Rifle

On at least three fall occasions I'd opted to hunt with my 22 rifle, telling myself, “I just won't see a turkey at close range, but maybe a squirrel . . .” On each of these trips I was offered close shots at turkey heads bobbing in the scope. I'd have done as well with a cork popgun from the county fair.

My most memorable failure came in the spring season following my bear/buck fall season. I was 15, and it was the final year for the coveted Triple Trophy Award. My dad and I were out nearly every day, trying to coax a gobbler into scattergun range. One day



Mr. Tom answered Dad's call not far from the local hunters' parking lot. This turkey was close, real close, and I was ready for him. Thoughts of my appearance at a Tripple Trophy Award ceremony crowded my noggin. Then another turkey, this one in an automobile, pulled into the parking lot, got out and slammed his door. I lowered my gun and handed back the trophy.

But wait . . . there's more grief. On one of the couple days I didn't hunt that season, Dad called a turkey in to a friend who came away with only a handful of feathers. No way would I have missed, I told myself.

Another time, this the last day — indeed, the last half-hour — of the season, Dad called a gobbler right up to the end of the rifle range at our cabin where I just happened to be lying in wait. At 15 yards, the gobbler began his fancy strut. At 14 yards I knocked him back to 15 with a magnum load of 4s. He didn't fall, but ran for all he

was worth — which I figured wasn't much as I stood up to deliver the coup de grace. Unfortunately, the bottom seam of my face mask caught on a tiny root. The opaque top section of the mask was pulled down over my eyes. A shot in the dark? Not by me. A buddy a short distance away nabbed his first gobbler.

Gads, let's leave that depressing season's end and beam back to the first hour where this account began. Will the turkeys reappear? Will I miss? Will my gun misfire? (Why not? That's due, isn't it?)

I'm pleased to report the turkeys — both bearded — have come over the rise and are strutting right along my sight line. Just point and squееееееze . . . BOOM! . . . the trigger.

Hmmmmmm . . . that's odd. A big gobbler is lying right there, motionless. Why doesn't he bounce up and run. . . or fly away . . . or something?

I guess I got 'im.

It's about time.

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# The Ten-Cent Bus Ride

By Ken Knapp





**W**ESTERN Pennsylvania was a tough place for a tall, skinny kid to grow up in—tough, but in a good sort of way. My father owned a tavern next to the railroad tracks in front of a steel factory. We lived right there, which wasn't conducive to outdoor pursuits.

Mom and Dad never hunted or fished. Guess with all the hard work in those days, they just never had the chance. But my Uncle Alex, or Shunny as they called him, was the answer to a small boy's prayers—or at least those related to Trueblood and O'Connor stories. Shunny had fished Great Bear, hunted in Alaska, and had done countless things that I had only read about. Or so my Dad and many of his friends told me. I was lucky to have him live just next door.

After work each day in the steel mills, local men would gather in my Dad's tavern. There was a lot of storytelling. The truth of those stories was probably questioned even then, but not by an eleven-year-old boy. My daily chores included general helping out and sweeping, but I spent as much time as I could just listening to those men telling tales of whitetail deer up north or big fish on Pymatuning Reservoir, while they passed their time over pinochle games. Oh, I had read Jack O'Connor and Colonel Askins, but this was the real thing. The best part was that they enjoyed letting me hang around and listen. Maybe I was the only one who believed them. I had no idea if the stories were true, and I didn't care. I lived every deer stalk and bird flush they related. I could even smell the fire in the wood burning stoves, though I had never been to hunting camp. I knew someday it would all be reality for me. Someday.

When I was twelve, for whatever reason, Shunny gave me a 12-gauge, single-shot Eastern Arms shotgun. It was a little rusty and hard of trigger pull, but it was my first shotgun, and I treasured it. I don't know a living man who'll ever forget his first shotgun. I was finally able to go hunting with

Shunny and his friend Weasel, as they called him.

That was a long time ago, long before the time of hunter education programs. Shunny and Weasel taught me safe gun handling procedures. They taught me to shoot rabbit, pheasant and squirrel. Squirrel took a lot of patience and sitting. I learned early on that I preferred rabbit and pheasant, because at least we moved around and got some action. When a rabbit exploded from under a brushpile, I began to understand what keeps men hunting beyond boyhood.

### **Both Left- and Right-Handed**

I was taught to shoot both left- and right-handed. As Shunny said, "Kid, rabbits and birds don't always flush from right to left, and if you can shoulder a shotgun from either side, you stand a better chance of a clean kill." Bless his heart, I'll never be able to thank him enough for that lesson. He always insisted on impeccable hunter ethics and proper gun handling. His diligent mentoring is still imprinted on my every hunting action.

When I was old enough to hunt alone, I began to go each Saturday, as many of the men had to work. In spite of my mother's yelling at me to go to bed, I would plead "Just fifteen minutes more, Mom, I'm going hunting tomorrow." I would lovingly clean my single-shot with Hoppe's, using an old T-shirt, then lay out my boots. The left one leaked like crazy and I always reminded myself to be careful when I crossed the first stream on the farm. It was a small shallow stream, and when I jumped it I made sure my right boot hit the water so my left one landed on the dry bank. In those days I always tucked my hunting socks in my boots the night before, and still do today. Funny how we establish habits like that when we're young. I can still feel those tired old red-and-black plaid wool pants and the thermal longjohns that always felt so good in the early morning but were always too hot by 10 o'clock.

Mom didn't understand those "men" things, and used to worry about me. Dad helped counter her feelings about me hunting alone. Perhaps he thought it was good for me. Maybe he secretly wished he had the opportunity, or the knowledge, to advise me as his brother Shunny did.

Funny how on a school day I always needed a poke to get me out of bed, but on hunting days I'd be awake and gone before anyone else was up. No alarm clock needed.

### First Bus East

Every Saturday before 7 a.m. I would be standing in front of my house on Walnut Street, waiting for the first bus heading east to Versailles Township. I'd get aboard, pay my dime, and check to be sure I had the other dime for my return. Few people rode the bus early on Saturday, but several would get on and off before the end of the line. I must have been a sight with my uncased shotgun and those old clothes. But somehow no one noticed or I was just too young to be aware. The bus driver always asked, "What is it you're hunting today, son?" I usually just said, "Rabbit," and let it go at that. I was a little shy.

At the end of the line on the other side of the Youghiogheny, the driver would stop, roll the bus sign to read "McKeesport," and wish me luck. I'd

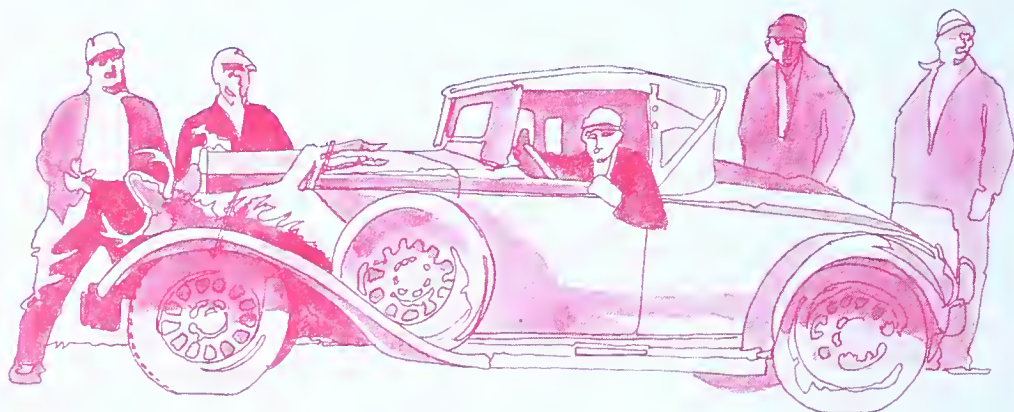
walk to the farm country east of the river, hoping to catch a farmer before he started working. I could usually get permission to hunt somewhere. When I got some shooting, and I usually did, I always offered the farmer a rabbit or bird. Occasionally, one took something, and I was usually asked to come back anytime.

The bus ride back was often a little more exciting. Not everyone hunted, and boarding the bus with several dead rabbits or pheasants often attracted attention. Some riders complimented me on my good shooting. Others sniffed and turned their heads.

Dad, who was a great cook, never planned a meal for Saturday night in hunting season. He counted on my bag. I still remember those good smells, and even Mom enjoyed the delicious fare. This probably played a part in the extra time she allowed me on Friday nights to get ready for Saturday's hunt. "After all, he's getting pretty big now, working at Feldman's grocery for money for shells and the bus . . ." she'd say. How careful I was in those days not to waste shells! I worked hard to buy them, so they were valuable to me. I counted them before each outing, and usually several times while walking in the fields. I always tried to make each one count for an animal.

One day, Shunny offered to take me

**WE ARRIVED back in McKeesport, the buck tied to the front fender of Shunny's car. Not much was said, other than something about, "It's the kid's deer." We never took a picture. Can't remember why.**





deer hunting with him and Weasel. I couldn't believe my ears. He did tell me I had to go hunting with him one time carrying only a broomstick to show I could handle a gun safely. If I passed that test, I would be loaned a big game rifle and allowed to go on my first whitetail hunt.

Two weeks of anticipation were almost more than I could stand, after getting approval from Mom and Dad. The broomstick hunt was for small game. It took place the week before big game season opened, and I carried that stick with more care than my best guns receive today. I handed it to my uncle when crossing fences and never, never pointed it at him or Weasel or anyone else. I couldn't figure out why they wouldn't let me take the old single-shot to show them, but they were adamant about that broomstick. They got some rabbits and three pheasants from a farm I often hunted at the end of the bus line, and I seemed to meet their critical review. (Sharing my secret farm probably didn't hurt my standing).

During the week to follow, Shunny picked me up after school each day and took me to the rifle range at a local gun club. I learned the basics of shooting the '03-A3 Springfield 30-06 I was to use for the deer hunt. I worked hard at it, and pretended not to mind the kick.

Deer hunting is more than simple tradition for hunters in western Pennsylvania. It is a true ritual. Deer season was always two weeks long. We were to go for the first week, so would be there for the opener. The country up north near Tionesta was beautiful, and "loaded with deer" as Weasel put it. Adrenaline pumped through me the entire length of the long car ride. I never felt Weasel was all that excited about having me along, but Shunny kept quietly saying "Oh, the kid will be all right."

We arrived at a rustic old cabin Shunny had rented. I noticed a high crossbar outside and inquired about its purpose. Shunny said, "It's for hang-

ing the deer we get." I quickly imagined the three big bucks that would hang there the next day.

Shunny woke me at 3:30 a.m. In my sleep I had already smelled bacon frying in the big cast iron skillet. That breakfast—crisp bacon and the eggs fried in the sizzling bacon grease, with hot bread put on the stove to toast—was the best I'd ever tasted. I still cook the same one before I go hunting. Ritual, hunger or good luck—for whatever reason, it starts my every hunting expedition.

### Good Spot for Kid

We left the cabin just before daylight. As it was my first day for deer, Shunny said they'd place me about 150 yards behind the cabin. Weasel said, "It's a good spot for deer, kid." I distinctly heard one whisper to the other something about, "The kid will be safer there."

The morning had greeted us with about a foot of new snow, and even the area behind the cabin was truly magical. I sat beneath a big white pine, trying to make myself comfortable. Shunny and Weasel took off up the ravine with their fancy scoped rifles.

They couldn't have been gone more than ten minutes when a whitetail buck sneaked from behind a big oak, oblivious to my presence. I can't remember getting the rifle to my shoulder or getting the safety off, but somehow I fired. Then I couldn't see the deer through the sights any longer, but I was far too scared to get up and look.

I guess the men heard the shot, 'cause they came running. Shunny hollered "What are you shooting at? You'll scare off everything in the county!"

I tried to say I had shot a big buck, but just about that time I heard Weasel yell, "Shunny—the kid really did it!"

His shout brought a monstrous grin to Shunny's face, and with arm around my shoulder, slapping me on the back every few seconds, he escorted me to the spot where the buck had fallen,

Ken Knapp is a fulltime outdoor writer. At the time this was written he was a member of the board of directors of the Outdoor Writers Association of America, and living in Grangeville, Idaho. But as the story shows, he is a native Pennsylvanian.

never knowing what hit him.

I don't remember much after that, but I do remember that night. The buck was hanging on the crossbar in front of the cabin, I had my shirt tails cut off, and blood was smeared on my cheeks. I don't think I washed my face all week. I can't remember if the men were proud of me or somehow envious. It didn't matter.

The next five days I was left alone to hunt squirrel with a 22 borrowed from the man who rented us the cabin. Shunny and Weasel combed the hills and woods from dawn till dark. It was almost lonely, except for the mental replay of my first buck—which has never left me to this day.

We arrived back in McKeesport, the

buck tied to the right front fender of Shunny's car. Not much was said, other than something about, "It's the kid's deer." Dad and everyone in the neighborhood gathered to admire my deer, but we never took a picture. Can't remember why.

The butcher cut and packed my deer, and it was delicious. Mom made great venison meals for months. And she never complained again about my hunting, at least not to me.

The first Saturday of the following small game season found me in front of the house again, the old single-shot in my hand and a dozen shells in my jacket pocket, waiting for my friend the bus driver.

Somehow, all of that—the smell of bacon frying, the sound of the old bus coming 'round the corner, the Springfield and the one-barrel Eastern Arms, the brush-frayed wool pants—affected my whole life. I can feel those scratchy old pants now, and the dime deep in the bottom of the right front pocket for the trip home.

## SPORTSMEN STOP WILDLIFE OUTLAWS

Two things will never change: there will always be wildlife outlaws and there will always be sportsmen who detest wildlife outlaws. We salute the SPORT hunters in northwestern Pennsylvania who recently went out of their way to get some wildlife outlaws arrested.

Here's to the sportsman in Jefferson County who stopped buck hunting and brought DGP Don Garner in on the fellow who shot a black bear and cut off its ears and a paw. *BINGO!*

Here's to the two 17-year-old sportsmen who spent hours tracking down an Illinois turkey shooter in a remote area of Venango County during the first week of buck season. DGP Leo Yahner got the man on a powerline with the turkey in his knapsack. *BINGO!*

Here's to the three Mercer County buck hunters who stopped hunting when several does were shot nearby. One sportsman got DGP Jim Donatelli, while two remained to watch. Officer Donatelli followed tracks to a garage where three illegal antlerless deer were hanging. *BINGO!*

A sportsman in Clarion County contacted DGP Gordon Couillard during buck season to report an illegal bear killing. The sportsman's perfect description of the violator led Officer Couillard to an arrest two days later. *BINGO!*

A sportsman in Venango County contacted DGP Leo Yahner about illegal doe shooting during buck season. When DGP Yahner and assisting officers wrapped up the case, four men were arrested with three illegal antlerless deer. *BINGO!*

The cases go on and on. Time and again, sportsmen who care have done something about wildlife outlaws. They have our respect and appreciation.

—R. G. MacWilliams  
I & E Supervisor, Northwest Region



# One On My Own

By Richard Tate

**D**URING THE past half-dozen years, I have become afflicted with spring gobbler fever. Often forsaking my longtime springtime mistress, the elusive brown trout, I have spent a great portion of each April and May in the woods, trying to find and collect gobbling toms. Until the past season, I had killed only one spring gobbler, a 16-pounder with an eight-inch beard. However, my dad had called that one in for me—all I had done was to pull the trigger. A couple of times I had been close to bagging gobblers on my own, but they always stopped just out of range.

Anyhow, I was on my own, so to speak, during the 1983 spring hunt. Dad's job, while allowing him to help me scout prior to the season, was going to prevent him from hunting, at least during the opening week.

The preseason gobbling activity had been super. In April the local ridge and mountain gobblers had exercised their vocal cords more than in any spring since I became interested in gobbler hunting. Dad had earlier remarked that local toms had quieted considerably since the early years of Pennsylvania's spring season, but he'd been as elated as I was about the preseason gobbling. "If there aren't too many guys around, you ought to have a good chance," he told me the week before the season opened. "We've heard gobblers nearly every time we were out."

"Things do look promising," I agreed. "Just as long as I don't goof when I start calling."

"You ought to try Hemlock Hollow," Dad suggested. "That's about as far from the road as you can get, and you shouldn't have too much competition. Most of the other guys will be closer to the hard roads."

I didn't sleep well for the next week.

My head was filled with visions of strutting gobblers rushing in toward the plaintive yelps I would be sending out from my little diaphragm caller.

Though one of many April downpours struck on the night before opening day, I resolved to rise at 4 o'clock the next morning anyhow. When I did, I was delighted to find that the rain had ended without leaving a blanket of fog. After a hurry-up breakfast, I sallied forth to the mountain. An hour of steady walking in the dank forest brought me to a distant knob near Hemlock Hollow where I hoped to do business. I placed a rubber cushion at the base of a big oak and plopped down on it, my back against the tree as a safety precaution. I also donned a camouflage mask and brown gloves to hide the light skin which would surely give me away to a keen-eyed gobbler.

## Silence

As darkness dissipated, I gave a few soft clucks, hoping to arouse one of the gobblers I had heard during my scouting forays. I was answered by silence.

During the next ten or fifteen minutes, the morning aria of songbirds commenced and increased as a drizzle began. I started to sip a cup of coffee. Then I heard the faint but unmistakable gobble of a mountain monarch far off in the distance. I knew I needed to be closer to him than I was, so I dumped the coffee back into my thermos, gathered my paraphernalia, and hurriedly set off toward his position which lay south of me. Despite my heroic efforts as the O. J. Simpson of the backwoods, my mad dash was in vain; the drizzle turned into a steady shower, the gobbler shut up before I could pinpoint him, and I had to find shelter under a large hemlock.

"Miserable weather. Maybe if I wait





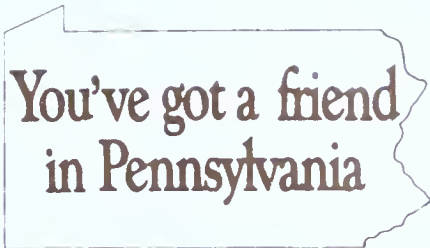
out the rain, he'll gobble again," I grumbled, though without much conviction.

I entertained myself for an hour by yelping every ten or fifteen minutes, dreaming about dry weather, and working on my thermos of hot black coffee. By 7:30 the rain did end and, better yet, ten minutes later that old bird let loose with a thundering gobble-obble-obble! Though he was still beyond me by 150 yards or more, I was afraid to try approaching closer. However, he was uphill from me, and Dad had told me to try to be above the gobbler when calling. I decided to move uphill from the hemlock to at least the gobbler's level. The lovelorn tom continued to sound off as I silently made my move. When I eased down on my cushion under a large oak, my heart was beating like a tom-tom.

Facing in the bird's direction, I propped my old 12-gauge on my knees to prepare for his arrival — if it came. I made my first yelps with a new double diaphragm caller Dad had recently given to me. The gobbler immediately thundered a reply. I called again, perhaps two minutes later. He again ripped loose with a shattering gobble-obble-obble that sounded no more than 60 or 70 yards away. He was rapidly moving my way, but was behind some thick grapevines and striped maples. As I dueled with him for several minutes, it became obvious he was reluctant to leave the thicket, though several times I spotted him pacing back and forth through the vines, searching for the coquettish hen. What was I gonna do, I wondered. He sounded like a good one, but he sure didn't want to leave those vines.

It was a perplexing tactical situation, but I suddenly recalled one of Dad's favorite maxims: "Don't call too much; make him anxious to find you." So I made a final short series of yelps, then called no more.

The turkey gobbled madly. When he got no further responses from me, though his gobbling aroused another tom on the mountaintop, he became



## You've got a friend in Pennsylvania

anxious, probably thinking the hen had lost her ardor. Within ten minutes he warily slunk out of the thicket to my left, clucking nervously as he scrutinized the territory. I allowed him to cross a small opening about 30 yards away, thinking he would come even closer. But when he couldn't find a hen, he slowly reversed his field, moving back toward the tangle of vines. I decided that when he re-crossed the opening I was going to fire.

### Blast Shattered Calm

When he stepped into the opening, I had the bead of my shotgun on his head. I pulled the trigger. The blast shattered the morning calm, scattering small twigs in its path and knocking the gobbler into the vines. I was off the cushion in an instant, dashing toward the thicket to make certain the bird did not escape. It was good I ran closer, for as I arrived at the tangle the gobbler regained his feet about a dozen steps away. I fired again, ending my hunt.

Yes, I had achieved my goal of killing a gobbler on my own. Or had I? True, I hunted alone and had done my own calling, but I had relied on Dad's expertise as much as I had used my own skills for the success of the hunt. I had followed Dad's advice about calling; he had also taught me to scout for gobblers prior to the season, and to position myself in a favorable calling location during the hunt. Yes, I had been alone when I killed the fine spring monarch, but I was not really on my own. Dad was there, and will always be with me when I hunt — if not physically, at least in the spirit of all the hunting wisdom he has imparted to me.







THERE ARE TIMES I'd swear Swampy Boggs is clairvoyant. Either that or he has a spy living near my house. Not all of his calls come at appropriate moments, but this one was perfectly timed. I was sifting through my modest knife collection, checking

for just everyday use too, not just those for doin' something important."

It's necessary to know Swampy in order to understand some of his sentences. Anything not having to do with hunting, trapping or fishing is not "important" as far as he's concerned. The

## A Knife Swap— Swampy Boggs Style

By Jim Bashline

for imaginary hints of rust and wiping each one carefully with a hank of cotton flannel that had been well soaked with Hoppe's and sewing machine oil. They really don't need much care but it's a comforting thing to do twice a year. I do the same with guns and fishing reels. The phone call was collect (Swampy's usual procedure).

"Hey there, hotshot, how are you doin'?" I was just thinking about you and knew you'd be hard put for one of those fil-is-sof-o-cul gems you crank out once in awhile, and I have this discovery to tell you about. It's about knives."

As usual, Swampy didn't wait for much of a response after asking me how I was. He gets right to the reason for calling.

"As a matter of fact, Swampy, I happen to have a knife in my hand at this very moment. I like knives."

"Well, is that so? What kind of a knife is it? I suppose it's one of them giant toad stickers you dudes like to show off with."

"Naw, Swampy, you've hunted with me often enough to know I don't carry one of those. I've got a couple of big blades here in the box but I wouldn't carry one hunting. Maybe use one for butchering a deer at home but . . ."

"Well, at least you show *some* sense. You can pretty much tell what kind of hunter, trapper or fisherman a guy is by the kind of knife he carries or don't carry. And this includes those carried

business of earning a living, for example, is far down on his list of worthwhile activities. He works, at a real job, just often enough to provide an occasional luxury.

"Okay, Swamp, how does your 'knife insight' theory work?" I knew I didn't have to ask, because he was going to tell me anyway.

"Knife insight? Heh, heh, that's pretty good, and that's exactly what it is. Now, during huntin' season, the deer season that is, it's easy to pick out the shoe clerks from the fella who's been there before. The dummy has one of them Boo-ie slashers strapped to his hip with a tie-down thong on his leg to keep it from floppin'. The blade is so long he could use it for a crowbar and the grip needs two hands on it just to pull it out of the sheath. It's about as handy for guttin' a deer as a pipe wrench would be for a jeweler. He just wears the thing to show off and impress his friends. And besides, this clown's big knife is never sharp. The guy who knows how to dress a deer or slice bacon has a short, thin-bladed little dandy that's just a mite rounded on the tip so it won't rip into the gut by accident. And if he falls on it, it won't run through him from tongue to tiddlywinks."

"Fair enough, Swamp, but just about everyone who has half a brain knows all of that. So it's nothing earthshaking. Where's the big discovery you talked about?"

## Pennsylvania Game COOKBOOK



**Pennsylvania Game Cookbook** is a 96-page collection of delicious recipes submitted by **GAME NEWS** readers. It includes methods of preparing all kinds of game available in Pennsylvania, plus some recipes for moose, elk, and other species. \$4.00 delivered from **GAME NEWS** office.

"I'm gettin' to it. Don't get all excited. By the way, did I tell you that old Elmer Potts, over near Mildred, has finally decided to be friends again and we can hunt woodies on his pond this year? Of course, you'll have to go with me because old Elmer don't trust anyone who don't live in Sullivan County . . . heh, heh."

Swamp has a way of inserting a piece of worthwhile information like that into his calls. He knows it gets my attention and stops my complaining about the phone bills. No con man ever displayed greater artistry.

"Anyway, when a feller whips out his pocketknife to clean his nails, cut a piece of rope or hack the tip off a good

see-gar, you know right away almost everything you want to about the guy. Fer instance, if the knife is one of them mother-of-pearl jobs with two little rounded-off blades, you know right off that the closest he'll ever get to the woods is in National Geographic Magazine. The blades are never scarred up or whetted down. If the knife has one of them nice wooden handles with the pretty grain in it, he bought it from one of them mail order catalogs that told him that it was a co-memer-a-tive special for some great event that everyone who thought he was an outdoor person ought to co-memer-ate. Leave this fella alone, or else sell him some rocky real estate, heh, heh. He'd buy anything."

"Come on, Swampy, a lot of folks are into knife collecting these days. It's harmless. They have fun doing it. I do myself. As I told you, I had one in my hand when you called. I was wiping off my knives and just kind of sorting them out and . . ."

### Three Knives

"Oh, that's okay if a fella's got more money than brains, but you only really need three knives to get by in this world. A good, rugged pocketknife, a hunting knife that gets into tight places, and a 12-inch butcher knife for the big jobs at home. Anything else is frosting on the cake. But I didn't finish about pocketknives. Now, when you see someone pull out a pocket knife that's all gray and purple on the blade, and worn down to a near nub from being sharpened and the bone handle is cracked and held together with E-poxy glue, you can figure that fella has been around and knows what he's doin'. The knife ain't just for show, it's used to do things with. Now, you take this knife I got in my pocket for instance. . . ."

I didn't let him finish because he had already described his pocketknife to a tee. I had seen it dozens of times. Its blades *were* grayish purple and had been sharpened to a mere shadow of their original shapes. The bone handle *was* cracked.

"All right, wise guy, I'm onto you. I



WHEN A FELLER whips out his pocketknife to clean his nails, cut a piece of rope or hack the tip off a good see-gar, you know right away almost everything you want to about the guy. If the blade is gray and purple, and worn to a near nub, you can figure he knows what he's doin'.

know you've got a broken down old knife in your pocket. The only feature you described incorrectly is the epoxy repair."

"Heh, heh. I fixed that this morning. I found the busted-off piece down in the traphouse and decided to stick it back on. It musta broke off when I was doin' some foxes. Why, there must be at least three or four more good years in that knife—if I don't lose it. But you think about what I just told you, watch out for a guy's pocketknife. The kind of handle and the shape of the blades will tell you an awful lot about his makeup. By the way, what kind of knife are you carrying now?"

I knew what I had in my hip pocket but I took it out to study it more carefully. It had mother-of-pearl handles and the blade wore an inscription that was still readable . . . "Pennsylvania Bicentennial." "It's, well, it's a knife something like yours, Swampy, and it's worn down a little and. . . ."

"You don't lie very well, hotshot. Heh, heh, I've seen that white-handled knife of yours too many times. By the way, you interested in tradin' knives?"

Here was the sting!

"You've got more nerve than a mouse at a cat convention. Swampy! You give me all this philosophic pap about knives, and then you want to trade my 'collector' knife for your broken down



relic! What would your pals in Shunk say if you showed up with a pearl-handled knife?"

"Heh, heh. Well you see, they *know* who I am, have for a long time, and me carryin' a knife like that wouldn't fool them. On the other hand, you carryin' a knife like mine would do a world of good for your image. Get my drift?"

"It won't work. Swampy, I'm not buying your line this time. But I'll find a pocketknife for you before I drive up to Shunk for the duck hunt. So long for now, and try to stay out of trouble."

"Heh, heh, goodbye!"

*Harumpf*, as Major Hoople used to say, National Geographic outdoorsman indeed! Just because I carry a good looking knife.

Come to think of it though, Swampy's old knife might be kind of nice to have in my collection.

## Cover Story

Be careful. Expectations can reach a fever pitch when it seems an amorous gobbler is finally coming to within shotgun range. But eyes and ears can play fatal tricks on a person under such conditions. And the fact that camo-clad hunters making sounds like a turkey are probably in the area make it imperative that shooters be absolutely certain of their targets. Every year hunters are shot in mistake for bearded turkeys. How one can be mistaken for the other is difficult to imagine, but it happens. So be careful. Be sure.



AMERICAN  
CHESTNUT



SHAGBARK  
HICKORY



SCARLET  
OAK



WHITE ASH

BLACK WILLOW



# Place Names Tell Tales About Trees

By Joseph M. McMullen

**I** GREW UP in the rich forested mountains of central Pennsylvania, near the borough of Ashville in Cambria County. This part of the state has a nice mixture of northern hardwood forests and oak forests.

There were plenty of cold winters in that area. If I would go outside on a cold day and forget to close the door, my father might say, "What are you trying to do, heat up the whole hickory ridge?" Besides trying to correct one of my bad habits, my father was telling me something about where certain trees grew. Something about hickories. Hickories grew on ridges.

There are many other ways in which the facts about certain trees or groups of trees are reinforced. Probably all of us are familiar with a place or an area named after a tree. You might know of a Hemlock Hollow or a Hemlock Cove, maybe a Chestnut Ridge or an Oak Ridge, a Willow Stream or an Ash Knob.

Such names are so common you probably have never given them a second thought. But if you stop to think about these names, they'll tell you a lot about the habitat requirements of trees.

Take hemlock, for example. It's Pennsylvania's official tree. It can be found from Canada to the mountains of Georgia. Although it grows throughout the commonwealth, it does best in certain habitats. Areas named after the hemlock are usually coves, hollows, bottoms, or other low-lying sheltered areas. You seldom hear of a hemlock ridge or a hemlock knob. Why? Well, it's pretty simple. Hemlock doesn't grow well on dry, exposed areas. Dry ridges just don't have the right conditions for good hemlock development and growth. The hemlock

is a tree that requires a moist environment, especially when it's young.

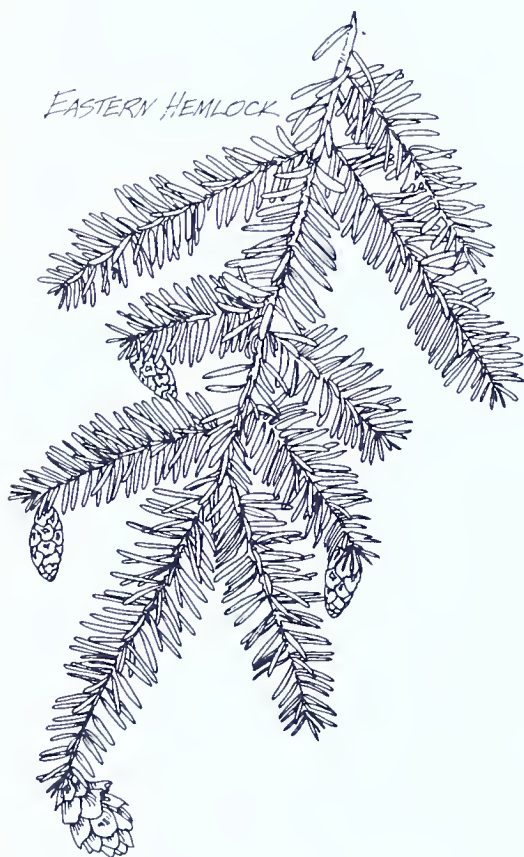
By moist environment I don't mean just moist soil, but moist air, too—places where the air has a high relative humidity. You have probably felt these differences in air moisture. Maybe on a warm Indian summer day when you dropped down into a cove or stream bottom to see if you could flush a grouse out of a hemlock clump, you felt a change in temperature and moisture. It was cool and moist in that bottom.

Those hollows and coves are just right for hemlock. They provide the moist soil and air conditions important to hemlock. Their soils offer moisture close to the surface which can easily be taken up by the shallow root system of hemlock. If you've spent any amount of time in the woods, I'm sure you've often seen a big hemlock that was blown over, roots and all. Next time you see one, take a close look at that root mass. Those roots are all right up next to the surface.

## Wind Harmful

Coves and bottoms also provide protection from wind. You may have noticed that wind velocity is a lot lower down where hemlocks are thick. Isn't that why you always check out that protected draw during a cold, windy day in deer season? Wind can easily damage hemlock trees. Wind is especially harmful during cold winters when moisture can be quickly removed from needles, resulting in damage. Wind can also easily break the

small branches of hemlock. So the conditions and protection afforded by sheltered bottoms make way for dense stands of hemlock. As a result, many of them bear its name.



I don't want to leave you with the impression that coves are the only place hemlock will grow. It will grow on the upper part of a slope. But usually on those slopes that face north or east. These are much more moist than those facing west or south.

Another tree that often has low-lying areas named after it is willow. Some common names are Willow Stream, Willow Brook, or maybe Willow Dale. As these names indicate, willow is really a floodplain tree that is usually found near water, often at the very edge of open water. Stream edges, margins of lakes, or marshes are just right for willow.

Willow, like nearly all floodplain trees, has a shallow spreading root sys-

tem. These trees grow where the water is, or near the surface of the ground most of the time. If the roots were deep, they would be permanently flooded and soon die. The same thing can happen if you fill in around a tree. In both instances you are cutting off the supply of oxygen to the roots, either with water or soil. Air is needed by the roots of all trees. No native Pennsylvania tree will grow in permanent standing water. Actually, few trees in North America can withstand those conditions. One which can—maybe the one that most often comes to mind—is baldcypress, a characteristic tree of Florida's Everglades.

Willow has a way of protecting itself from being smothered by flood-deposited soil. It quickly develops new roots, even from limbs. Ever break a branch off a willow and stick it in the ground? In a couple of weeks it'll have roots at that broken end. Most floodplain trees have the ability to quickly produce these "adventitious roots." If they didn't, they wouldn't last too long on a floodplain.

### Common Ridge Names

What about the common ridge names? Chestnut is probably the most common, although oak and hickory are frequently used. You are doubtless familiar with the plight of the American chestnut, once one of America's most valuable hardwoods. A species in existence for thousands, maybe millions, of years, it was essentially eliminated as a merchantable tree in less than 50 years because of man's introduction of a fungus from another continent.

Nevertheless, those ridge names are still there, and so are many young chestnut sprouts. Scientists claim these sprouts are the key to the survival of chestnut as a timber tree. Some feel that a mutant sprout will eventually develop and recreate the chestnut forests that once were.

Why is chestnut so frequently associated with ridges? Here again it has to do with the tree's habitat requirements



matching the conditions of an area. Chestnut is essentially a dry upland site tree. Its deep taproot can pull up the tree's needs even on rocky shallow soil areas. These are the conditions often found on Pennsylvania ridge tops.

In that part of central Pennsylvania where I grew up, chestnut was once a dominant tree. Big chestnut logs and gray, cracked snags—remnants of those past monarchs—could still be seen when I was young. But the death of the big chestnuts left a void in the forest, a void that was quickly filled by trees that have similar habitat requirements. Oaks and hickories took up the space. What had been a disaster for chestnut was a boon for these. Big shagbarks and northern red oaks can now be found where mighty chestnuts grew in yesterday's forests.

Ridges dominated by oak and hickory are common in Pennsylvania. About two-thirds of the state is within what is commonly called the oak-hickory forest region. As a group, oaks are the most important and widespread hardwoods in the north temperate zone. Many oaks do well on dry slopes or ridges. Warm, dry slopes usually face south or west. These slopes get more sun than those facing east or north. The extra sunlight melts the snow off a south-facing slope quickly. That's why deer frequent such slopes in late winter.

The oaks that do well on dry sites are northern red oak, chestnut oak, black oak, and scarlet oak. Like chestnut, these oaks have a deep taproot that can pull up water from well below the soil surface. They have stubby branches made up of a hard fibrous wood that can withstand strong winds. Their leaves are shiny and usually covered with a waxy coating that further protects them against the loss of moisture.

Another common ridge name is hickory. Shagbark hickory is probably the most common upland hickory in Pennsylvania. Shagbark is actually widespread over the eastern U.S. from

Maine to Florida. Its shaggy gray bark, which peels off in long strips, sets this tree apart from all others in Penn's Woods. It has nearly all the same traits as the upland oaks—deep taproots, stubby limbs, and strong wood. Hickory wood is extremely fibrous, and this makes it one of our strongest woods. It is a wood that will bend and take a lot of shock without breaking. That is why handles for tools are often made from hickory.

### Timing

Another factor that adapts hickory especially well to those ridges is the timing of its leaf development. Hickories are one of the last deciduous trees to get their leaves in the spring. In autumn, hickory leaves are among the first to fall. On a dry ridge where water is scarce, these adaptations are important to the conservation of that resource. Trees lose an incredible amount of moisture through their leaves. By limiting the amount of time the leaves are on the tree, the amount of water loss is also limited.

White ash has many of the same qualities as hickory. Not only does it have a deep taproot, stubby branches, and wood with almost the identical qualities of hickory, it also has the same leaf development scheme. The only place I know of that is named after ash is a knob. Back the road from my parents' house is an elevated projection of land known locally as Ash Knob. I'm not sure why more places aren't named after ash. It's probably because ash doesn't form dense stands over large areas as oak and hickory do. You might find a dense patch of ash on a particular small area, like a knob, but you usually don't find it as a dominant tree across a whole slope or ridge. It's usually mixed in with other trees, but not the major canopy tree.

The next time you hear of a place named after a particular tree, ask yourself why. It might tell you something about the conditions offered by that place and the habitat conditions favored by that tree.

# SEAN

by Paul A. Matthews

HE MISSED the boy. It didn't hit him until the youngster had been gone four years, and he suddenly realized that had the boy lived, he'd now be seventeen—an age of enthusiasm, an age of comradeship with Grandpa. But it was not to be. He was gone, irretrievably lost on that bleak February afternoon four years ago.

He wondered what it would have been like to take his first grandson squirrel hunting or deer hunting. As he paused to rest, wiping the snow from a fallen log with one sweep of his hand, his mind drifted back to a time when the lad had been only two or three—just beginning to comprehend and use the English language.

The boy had been there on the first day of deer season because his father was going to hunt with Grandpa. And if there was one thing Grandpa *didn't* want to do, it was kill a buck on the first day. That always spoiled it. He always felt that if he hadn't hunted for at least half of the season, he hadn't hunted at all. For him, the thrill of deer hunting was in the hunting itself, not in the taking of a deer.

## Season Finished

But as luck would have it on that day, along about 10 o'clock as Grandpa was easing his way through a hemlock thicket, he heard the crashing of hooves on dead leaves coming his way—fast. The buck tore by Grandpa, and a split second later, without taking the time to think of the consequences, the old man fired once and his deer season was finished.

Grandpa dragged that buck on dry ground for the better part of a mile, sweat coursing down the middle of his back, before crossing the backyard of his home along Mallory Run. He didn't stop dragging until he had the animal under the oak tree where a

block and tackle hung from a lower limb. It was then that he looked at the house and saw the boy with his nose pressed against the window. A moment later, the boy disappeared and Grandpa heard the high squeaky voice shout to all within hearing distance, "Grampy broke a deer! Grampy broke a deer!"

What he wouldn't give to hear that voice now.

Ah, yes, he had made a mistake with that boy—the mistake of waiting for the boy to grow up. He had dreamed of what they were going to do when the boy was big enough, and all the time precious moments were slipping between his fingers. They had done a few things together, but not nearly all they could have.

The old man's head jerked upright as he realized he'd broken one of his own rules—never let your mind drift off the job at hand. The lapse embarrassed him, and for a few minutes he tried to make up for it by studying every shadow in the hemlock and laurel and hardwood, trying desperately to make a deer materialize where there was none.

His gaze swept over the wooded snowscape, gleaning tracks that led up the slope on the far side of the shallow draw. A bit of white flickered in the corner of his vision and he slowly turned his head to study it, finally making out the chickadee that fluttered from one hemlock tip to another. After a moment his heartbeat slowed to normal and the woods and snow made a beaded screen in his mind on which the events of the past erased those of the present and led him back to the dreamy state from which he had come.

He'd never forget how good he felt the day the boy showed up at the house with an 1890 Winchester 22 pump—a







gift from the other grandfather.

"Will you show me how to shoot it, Grampy?"

The old man led the boy to the gun room in the basement — a sanctuary of bullets, powder, primers and bullet moulds amid an array of loading presses, melting pots, scales and sizer-lubricators. "You bet I will," he croaked. "That little rifle is one of the nicest there is."

From his hoard of goodies, the old man lifted a full box of long rifles and handed them to the boy. Then the two of them sat down together, perched on high homemade stools, while the old man cleaned the rifle's bore to make certain of its condition. He ran his fingers along the barrel, feeling the sleekness of the metal and marveling at the craftsmanship. About six inches ahead of the chamber, he felt a slight swell in the barrel — not much, but enough to show that at one time the rifle had been fired with an obstruction in the barrel. Probably a cleaning patch.

He let the boy feel the rifle barrel,

and then explained what had happened. "That's one thing you've got to watch," he said. "Keep the barrel clean an' don't ever fire it to get rid of snow 'er mud 'er something else like that."

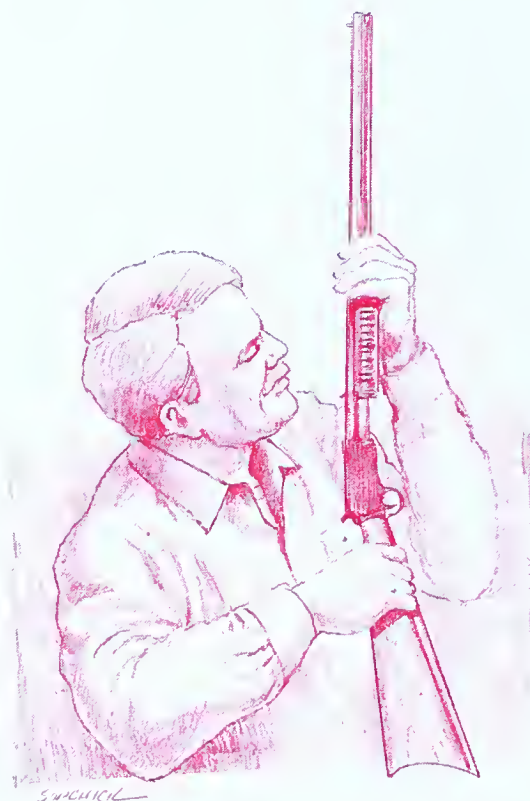
The boy nodded, though whether or not he understood, the old man never knew. They went outside then to the shooting bench where, again, the old man tried to explain the intricacies of open iron sights and how to "set that little ball on the front sight in the U-notch of the rear sight an' hold the whole works just under the bullseye." He even sketched a picture of it on the back of a target so that the boy could see.

The boy wiggled into position on the shooting bench and, after fingering a cartridge into the chamber, the old man laid the gun across the sandbags and coached the boy into his first shot. A small hole appeared on the target — far from the bull — and then another and another and another until the paper was covered with scattered perforations.

"Yuh did good! The holes are a bit far apart, but you'll soon take care of that." And then they hung a new target and headed back to the bench.

The old man ran the memory of the incident through his mind like a late-night movie — the boy racing back to the bench and snatching up the rifle and withdrawing the magazine tube. He recalled shouting at the boy and later the stern lecture about never loading a magazine on the shooting range. The boy chewed his lower lip for a moment, and then went to the house, leaving Grandpa at the bench holding the rifle.

The old man shifted his weight on the log and slowly swiveled around to check the woods behind him. More than once he'd had deer sneak behind him while his mind was off wandering



**HE RAN HIS fingers along the barrel, feeling the sleekness of the metal and marveling at the craftsmanship. About six inches ahead of the chamber, he felt a slight swell in the barrel. . . .**



**A SMALL HOLE** appeared on the target—far from the bull—and then another and another until the paper was covered with scattered perforations. “Yuh did good!” Grampy said. “The holes are a bit far apart, but that’s okay.”

and, again, he scolded himself for being lax. Deer hunting—if you truly hunted—demanded full attention to details.

His stomach growled a warning and without looking at his watch, the old man knew it was about eleven-thirty. He had been punctual all his life from day one, and his stomach was as good a timepiece as his pocket watch with the snap cover and raised gold steam locomotive. From the depths of his pockets he took out two homemade granola bars and the pint flask of cold tea. While he sat resting on the log, he ate his lunch and thought about the time when *his* father had given him his first 22.

“Here’s your rifle,” his father had said. “And if I ever see you killing anything with it just for the sake of killing, or if I ever catch you being careless with it, I’ll give you a thrashing and take the rifle away.”

### First Lesson — And Last

That was all—the first lesson and the last—and the old man had never broken the rules nor questioned the wisdom of the text. Of course, that was in another day, a different age.

From the far side of the slope on the other side of the draw, a blue-jay started its noisy scolding. Mid-bite, the old man set the granola bar aside and lifted the rifle from his lap. The jay scolded again and the old man got to his feet. Something, man or beast, was on the far side of the draw.

Time slowed to a molasses crawl. The old man took a cautious sideward step where he could lean against an oak tree and then started to visually dissect the slope, searching every shadow, every stump and bush and tree for some shape or color that didn’t belong. When he found it, he saw that it was a small doe easing one slow step



at a time to a patch of scattered laurel where she finally lay down in the protection of a hemlock. The old man watched her settle and then he too sat back down on the log and went on with his lunch.

Ah, what he wouldn’t give to have had the boy see that—to sit here on the log with the boy beside him eating lunch with one eye on the now shapeless blob of dull brown under the hemlock, the other eye darting furtively about just in case a second deer should be following. It was enough to quicken a man’s heartbeat.

But somehow, for some reason beyond the ken of the old man, the boy had lost interest in the 22. Once or twice after that first day, they shot together but for only a few rounds, and then that was the end. The boy never brought the little Winchester with him again.

Maybe, the old man thought, I was too harsh with him. After all, the boy hadn’t *loaded* the rifle, he had just removed the magazine tube. With a slight shake of his head, the old man dispelled the thought and turned his attention back to the doe under the hemlock.

She was standing again—a motionless silhouette with her head turned to scan her backtrail. Something was coming and, again, Grandpa got to his feet and leaned against the oak.

## Wanted: Coyotes from Pennsylvania

In an effort to learn more about coyotes in the state, Don Hentz, a PGC wildlife technician who is currently on leave to pursue a master's degree, wants skulls and carcasses from animals known or believed to be coyotes from Pennsylvania. Coyotes taken by sportsmen and landowners or killed on highways can provide valuable information on this newcomer to the state. The sex of the animal, along with the time, place and cause of death, are also needed. If you have or encounter such evidence, Don would like to hear from you. Write to him at 570 Range End Rd., Dillsburg, PA 17019, or phone the Shippensburg University Museum, care of Dr. Gordon Curtland, 717-532-1407.

The doe wasn't nervous—no tail switching—which seemed to imply that whatever had stirred her didn't present a danger. The old man felt a warmth of hot blood rushing through his body as he followed the doe's line of sight.

Ah! There it was. Another deer working so slowly that he had to watch close to see it move. It oozed along like a cloud shadow drifting across the landscape in weightless silence. There was a flash of white above its head—the reflection of a winter sun off polished antlers. And all at once the old man's heart was hammering like a bass drum in a country band.

What a rack! In over fifty years of hunting, he'd never seen anything like it, and now the buck was working his way down the slope directly toward the old man. Easing the hammer back to full cock, he slowly lifted the Roll-

ing Block to his shoulder, supporting it against the oak to steady his aim. As the front sight settled on the buck's brisket, the old man caressed the trigger—not heavily enough to fire the rifle, but just enough for reassurance that it was there.

The buck came on, dipping out of sight in the bottom of the draw. In his mind, the old man picked the spot where the buck would come into view again—the spot where the old man would add those final ounces of pressure to the trigger.

The antlers came into view first, and then the head and then the full body as the buck stopped on the near side of the draw to study the view ahead. Its ears were cupped forward, the fine hairs inside sifting the air currents for vibration, the shiny black nose sucking in the scent of the woods, searching for the man-smell that spelled danger.

The front sight settled on a spot at the base of the neck and, for an instant, the old man increased the trigger pressure. Then he let up on it. It was almost as though a whisper had brushed his ear—"Grampy broke a deer!"

The buck stood there, staring directly at the old man and yet not seeing him. The tail twitched, flickered back and forth three or four times, and then, with a snort, the buck wheeled and bolted into a tangle of laurel and hemlock. In seconds it was gone.

"That was a beauty, Grampy!"

The old man's head jerked around, but the boy wasn't there—just an empty tea flask on the log and a landscape of black trees against white snow. But in his heart, the old man felt good. The two of them were together after all.

## Thoughts While Walking

*All good writing is swimming under water and holding your breath.*

—F. Scott Fitzgerald





AFTER HUNTING FOR turkey in the morning, my husband took our daughter Andrea fishing after lunch, and I was free to begin my search for wildflowers. Book in hand, I headed out the trail.

## Rewards of a Turkey Hunter's Wife

By Helen Snader

I DON'T NEED a calendar to remind me that spring gobbler season is approaching. I can tell by the earnestness in the yelps and clucks coming from our living room and the dozens of magazines featuring turkey hunting stories spread around the floor.

When my husband Noah announced he planned to take a few days' vacation during gobbler season, and would I be interested in going along, I jumped at the opportunity. I learned early in our marriage that if you can't change them, join them.

I made arrangements for our daughter Andrea to be excused from school for two days, and we prepared for our vacation.

While my husband packed his hunting and fishing gear, I collected my wildflower and bird books, along with other things we would need to make

our stay pleasant, and we headed for our hunting camp in the northwoods of Pennsylvania.

The first morning of gobbler season dawned clear, with a nip in the spring air. When Noah came back at 10:30, empty-handed but with a contented look on his face, I knew it was more than turkey that brought him north in the spring.

After lunch he and Andrea took their fishing tackle in search of hungry trout, and I was free to begin my search for wildflowers.

With book in hand, I headed out the trail east of camp. Pussytoes nodded their fuzzy faces in the gentle breeze. Violets added a splash of blue here and there. I was delighted to discover a patch of fringed polygala. These ground-hugging pink flowers remind me of an airplane with the propeller in motion.



### Question

I am under a doctor's order not to walk long distances. Can I get a permit to hunt from a vehicle?

### Answer

No. A person must have permanent paralysis of both legs and lower parts of the body, be permanently confined to a wheelchair, or use crutches as a means of support to pursue his daily activities, in order to qualify for a permit.

To my right, the forest floor rose gradually, and there under a towering oak a flat rock beckoned me. Sitting with my back against the tree, the warm sun caressed my face. Through

the unfurling leaves I watched fluffy white clouds drift lazily across the blue sky. Cheery notes of birdsong accompanied the singing brook nearby.

Spirit renewed, I followed the moss-covered banks of the brook. As I gingerly skirted a briar patch I found my little brook had disappeared, but I heard its muffled voice underground. A short distance ahead it burst out with renewed vigor.

The brook led me to a flat where rhododendron and giant hemlocks blocked out the sun. The moss underfoot was like a plush carpet. Thankful it was too early in the season for mosquitos, I enjoyed the beauty unmo-  
lest. In the flat, my little brook was joined by a larger stream, and their voices blended as they hurried on their long journey to the Susquehanna.

With the sun lowering in the west, I knew it was time to head for camp. I left with an awareness that Penn's Woods has more to offer than game and wildflowers.

Ah, I'm glad I married a hunter, who includes me in his jaunts to the northwoods.



DGP HAROLD HARSHBARGER, Elk County, was the 1985 recipient of the Shikar-Safari Wildlife Officer of the Year Award. He is shown here with Northcentral Region Supervisor Willis Sneath, far left. Harold was honored for his firm but fair law enforcement approach, his dedication to protecting public lands from abuse, and his work with sportsmen's groups. He has been assigned to Elk County since 1966, when he was graduated from the Game Commission's training school as a member of the twelfth class.





NEEDLESS TO SAY, that half-tame crow became a great novelty, almost a pet, and its presence placed a hiatus on crow shooting in the area.

# THE CAREFUL HUNTER

By Jim Hayes

**T**HIS STORY may be apocryphal.

Years ago in a rural community there was a talking crow. This was back in the days when crows were considered a pesky nuisance and fair game for shooters of all types.

Evidently the crow had been captured when young, trained to croak "Hello, hello," and either escaped or was later released. Needless to say, that half-tame crow became a great novelty, almost a pet, and its presence placed a hiatus on crow shooting in the area.

Typical of its breed, this was a mischievous bird, fond of dive-bombing small dogs and cats. Another of its tricks was pulling clothespins from laundry hung out to dry, a practice which exasperated local housewives.

But one summer the crow disappeared. The assumption was that someone had killed it.

The following November a high school student was returning from a

day of rabbit hunting when he saw a crow in the uppermost branches of a tall oak. Although the bird was well out of effective shotgun range, he impulsively decided to "dust it off," as he later explained, and unleashed a load of 6s.

To his astonishment, the crow tumbled and crash-landed in tall grass near the base of the tree. He ran to the spot and found the bird bleeding from the beak and feebly croaking, "Hello, hello . . ." Then it died.

That was the last crow the young man ever shot, and the last time he so heedlessly destroyed a life.

I relate the tale because it illustrates some advice impressed upon me by my dad, and which prefaced my introduction to gun-handling and hunting safety.

*"Never point a gun at anything you don't intend to shoot. Never shoot at anything you don't intend to kill. Never consider a gun as 'unloaded' unless it's*

*disassembled or otherwise obviously incapable of being fired."*

Today, a half-century later, those principles have withstood the test of time. To me, they capsuleize virtually everything that might be said about firearms and hunting safety.



**HE GLIMPSED** movement behind a broad oak. He raised his rifle, aiming slightly to the side of the tree, and seconds later found his crosshairs centered on his brother's shoulder.

The opening anecdote may or may not be true: This one really happened. Returning from a day's hunt, an acquaintance entered his house through the living room where his wife was watching television.

"Hey, be careful where you're pointing that gun!" she called out in alarm as the muzzle swung in her direction.

"Sorry, but it's okay, it's not loaded," he assured her.

To prove his point he worked the action of the pump shotgun — and ejected a shell which landed with a thump at his feet.

"I nearly went into shock," he later said. "To think that my carelessness could have killed the one person in this world whose life means more to me than my own. . . ."

A similar incident occurred at a deer

hunting camp where I stayed for a number of seasons. As a safety precaution, we had a strictly enforced rule against bringing rifles into the lodge. All guns were kept in our cars or propped outside under lean-to roofing.

Late one afternoon, one of the hunters came traipsing in, toting his 30-06. He was immediately admonished to "Get that gun out of here!"

"But it's snowing outside, and besides it ain't loaded," he protested.

He pointed the rifle at the ceiling, pulled the trigger, and *KA-BLAM!* blew a hole through the roof.

Seconds later he found himself sprawled outside in the snow, and his bedding and duffel thrown out after him. We never did hear where he slept that night, or at what camp he stayed thereafter.

*Never consider a gun as 'unloaded' unless it's disassembled or otherwise obviously incapable of being fired.*

The problem with safety rules is that most are not meaningful until reinforced by personal experiences. The fine print warning on a book of matches — "Close cover before striking" — is ignored by most people until they've been burned.

Unfortunately, acquiring deep-rooted respect for the safety rules applicable to guns and hunting through firsthand experience can have tragic consequences. The more viable alternative is to learn through secondhand or shared experiences.

### Unintended Kill

A friend told me this one. He was at a rifle range shooting in a newly acquired 220 Swift when he saw a groundhog feeding along the edge of a distant field. Allowing a bit for Kentucky windage, he touched off a shot and was amazed to see the woodchuck drop in its tracks.

"At first I was elated to make a clean kill at such a distance," he said. "Then I got to thinking what I'd done. I had no more intention of killing that animal than I would have of swatting a butterfly or throwing a rock at a songbird."



*Never shoot at anything you don't intend to kill.*

Two brothers were deer hunting when they decided to separate and later meet at their car. Hours later, one of them was watching from a stand when he glimpsed a movement at the edge of a broad oak tree. He raised his rifle, aimed slightly to the side of the tree, and seconds later found his crosshairs centered on his brother's shoulder as he stepped from behind the tree.

*Never point a gun at anything you don't intend to shoot.*

Most of us who regularly engage in hunting would agree it is a safe sport. The ratio of injuries to participants is significantly less than among skiers,

high school football players, or horseback riders, to name a few. The risk of serious injury or fatality is probably greater while driving to and from a day's hunt than while in the field.

Thanks to our hunter education programs, hunting is becoming safer with each successive year. Ultimately, though, gun-handling and hunting are only as safe as we make them — for ourselves, our companions and all concerned. So . . .

*Never point a gun at anything you don't intend to shoot. Never shoot at anything you don't intend to kill. Never consider a gun as 'unloaded' unless it's disassembled or otherwise obviously incapable of being fired.*

## *Books in Brief . . .*

(Order from publisher, not from Game Commission)

**Custom Knifemaking**, by Tim McCreight, Stackpole Books, Cameron & Kelker Sts., Harrisburg, PA 17105, 222 pp., \$18.95, delivered. If you've ever had a desire to make your own knife, this book will show you how. Tools, materials, designs and methods to build a wide variety of styles are all provided in easy to follow detail.

**Game Guns & Rifles: Percussion to Hammerless Ejector in Britain**, by Richard Akehurst, Sterling Publishing Co., 2 Park Ave., NYC 10016, 178 pp., \$19.95. This book will appeal to history buffs and collectors of old firearms. Covering the period from 1830 to 1900, the development of British firearms from percussion guns to breechloading, hammerless ejector models is provided in complete detail.

**Meat on the Table: Modern Small Game Hunting**, by Galen Geer, Paladin Press, P.O. Box 1307, Boulder, CO 80306, 206 pp., \$17.95, delivered. Hunting techniques and shooting arms for a wide variety of small game is presented. The author's extensive experiences woven into the more technical information make this book entertaining as well as informative.

**Birds of Erie County Pennsylvania**, by Jean Stull, James A. Stull and Gerald M. McWilliams, Allegheny Press, Elgin, PA 16413, 174 pp., \$9, southbound. A complete and current guide to, perhaps, the best place in the state for birdwatching. A wide variety of habitats, including the Presque Isle peninsula, attracts large numbers and many species of birds to our northwestern corner. Field notes on 327 species observed there, along with maps to particular hotspots, make this an excellent guide and reference for birders and other naturalists.

**Trapping Handbook: A Guide for Better Trapping**, Tom Krause, National Trapper's Association, Box 3667, Bloomington, IL 61701, 206 pp., \$12 (\$8 for NTA members), delivered. After introductory chapters on the history of trapping, modern management, ethics, and basic trapping and fur handling procedures, are complete accounts of each major furbearer in the county. Each account includes a continental range map, description of the animal, distribution, sign, natural history, trapping methods, and specific fur handling. Good illustrations by Bob Anderson complement the text. One of the best and most thorough trapping books on the market.



# Mountaineer



**CHARLES MILLS, JR.**, Huntingdon Valley, collected this bird, his first, in Bradford County.



**ROBERT TOWNSEND**, Spring Church, reports his 19-pound Armstrong County bird had a 9½-inch beard.



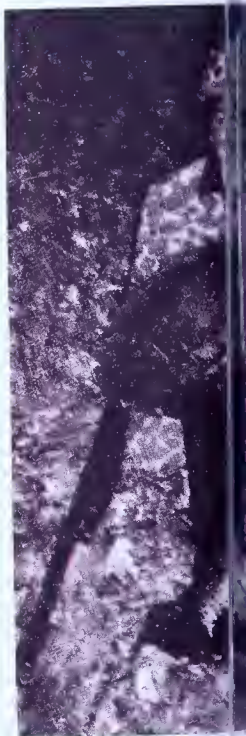
**DARLENE HARELLA** is pleased with her first husband **RON** called in a County bird.



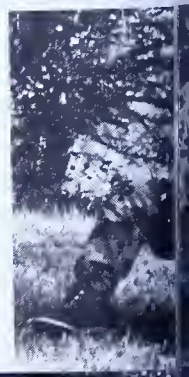
**ED SHINER**, right, Polk, took this 18-pounder from Crawford County; **WAYNE GROGER, Jr.**, did the calling. **GILBERT JONES**, below, Euclid, Ohio, visited Potter County to take his 23-pounder.



**JOHN GRAY**, right, Stewartstown, and his brother **RANDY**, took this 20-pound bird in Cumberland County. **DAVE GILBERT**, below, State College, got his gobbler on SGL 176, Centre County.



**RANDY** and **DAVE** waste any time a County trophy.





# Echoes

Left, JOHN and SHAWN STACHEL, Doylestown, bagged these birds in Potter County. John's weighed 11 pounds, Tom's 15.



TOM BERRYHILL, Brockway, stayed close to home to bag his 30th turkey, this 23½-pound Jefferson County trophy. It carried a 10½-inch beard, and had 1¼-inch spurs.



BILL HOPWOOD, Emporium, stayed in Cameron County for this 20-pound gobbler. Below, EDWARD DOUGHERTY, Drexel Hill, took his bird from Bradford County.

SCOTT BEEBE, left, did the calling and KIP ADAMS did the shooting, and they then made it home in time to attend school.



DENNY GORTON, Bradford, left, bagged this 20-pound McKean County bird on the opening day last year. Right, FRANK STRALECKI, Montgomery County, collected this bird in '85, his first in 13 years.

BUCHER, Lancaster, didn't  
n/ or one another. Their Tioga  
e ken only five minutes apart.



# FIELD NOTES

## Plan Now

As far as I am concerned, Greene County is this state's hunting hotspot. Waterfowl and pheasants aren't abundant, but deer, turkey and grouse populations are as good as anywhere. Many local hunters take advantage of the county's gray and fox squirrels, and rabbits seem to be making a comeback. I cannot remember a hunting season when I saw more game than this past one here. There is a fair amount of posted land, but most landowners are willing to grant permission to those who ask. —LMO R. B. Belding, Waynesburg.



## Not That Way

**LUZERNE COUNTY**—One of our Safety Zone cooperators was deer hunting near his farm when he saw a buck standing broadside only 30 yards away. He carefully aimed and pulled the trigger but nothing happened, except that the deer slowly walked away. The hunter could not understand why the gun didn't fire, until he opened the action and discovered he had forgotten to load it. —DGP Edward R. Gdosky, Dallas.

## Eight More, Cat

**DAUPHIN COUNTY**—George McEntee, Linglestown, reported accidentally catching a bobcat in a cubby set. When Deputy Hocker and I went to get the cat, we found George had made a perfect catch. I say perfect because only the cat's front toes were caught in the trap. We were able to release it immediately, none the worse from the experience. When using the right equipment, mistake catches often can be released unharmed. This was the first bobcat I know of being caught in this district since I've been here. Thanks to George's sportsmanship, it is still part of this county's wildlife community. —DGP Skip Litwin, Hummelstown.

## Nabbed

**LUZERNE COUNTY**—During antlerless deer season, Constables Richard Shabala and Stephen Williams were traveling on I-81 when they stopped to exercise a dog. They came across two freshly killed deer. They were field-dressed but not tagged. The officers contacted the Dallas office, and Deputies Klemish and Vogue were sent to the scene. After a long wait, until after dark, three individuals were apprehended when they were caught dragging the deer to a vehicle. Because of the alertness and efforts of these constables and deputies, three deer were confiscated (another was found in their vehicle, under a spare tire) and charges ranging from transporting untagged deer to hunting antlerless deer without an antlerless license and possessing a used deer tag were filed. Thanks again, sportsmen. —DGP Edward J. Zindell, Wilkes-Barre.



## Cooperation Pays

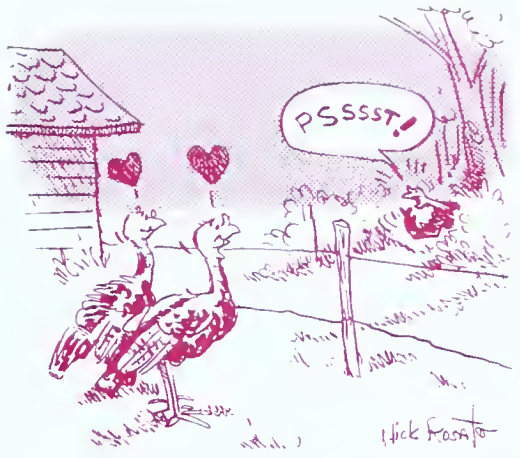
**TRAINING SCHOOL**—On the first day of the 1985 buck season, a 150-pound bear was killed illegally near Clear Creek State Park, Jefferson County. With a lot of leg work and a little bit of luck, several of us were able to apprehend and successfully prosecute the person responsible. This would not have been possible without the assistance of a father and son from Greensburg. These two men reported the incident and provided vital information. They also helped us recover the bear and later identified the defendant. Thank you, gentlemen—and thanks also to the man with the ATV who helped us get the bear out of the woods.—RI James R. Binder.

# Irrational

**ADAMS COUNTY—**A Maryland hunter and his young son approached me when they learned they were no longer welcome on a certain farm where they had hunted for years. They had done nothing wrong. It seems the landowner's neighbor doesn't like non-resident hunters and he convinced the landowner to post his farm and not let these law-abiding hunters on just because they are not residents. It's not unusual to hear people condemn non-residents. In my career, however, I have arrested more residents than non-residents. I feel there is undue prejudice against those from other states. Don't forget—when you travel to another state to hunt, fish, vacation or whatever, you become a nonresident. How do you like to be welcomed?—DGP Gary Becker, Aspers.

# Nope

**ERIE COUNTY**—A fellow called and asked if it was legal to carry a handgun and a rifle while hunting. He said, “I wasn’t sure if that was double hunting or something.” I assured him it was legal, and just waited for him to ask if he needed two licenses. —DGP  
Andy Martin, Erie.



## To Be Continued

**ALLEGHENY COUNTY**— Being in an urban area I've gained a lot of experience with nuisance squirrels, raccoons, rabbits, deer, skunks and groundhogs. But in December I added a new species to my nuisance list—a wild turkey. A person here was raising a couple of domestic turkeys for Thanksgiving, and a lonesome wild turkey repeatedly came into their yard and “kidnapped” the tame birds, forcing the owners to keep going out into the woods to rescue them. You're probably wondering if I was successful in capturing this nuisance turkey. Well, stay tuned for Part II, entitled “A Comedy of Errors!”—DGP D. E. Hockenberry, Pittsburgh.

## Mutual Concerns

**YORK COUNTY**—Many people are interested in our wildlife and will work to protect and preserve it. Dr. Donald Patton, for example, is a veterinarian from Red Lion who rehabilitates birds of prey. When Don had problems getting enough fresh fish to feed an injured osprey, help came from Mr. Harry Kermeyer. Harry owns a bait shop in Chanceford Township and he volunteered to supply all the fresh fish needed to feed this and other birds whenever Dr. Patton has a need. These are just two of the many individuals who donate their time and resources to help our wildlife.—DGP Robert L. Yeakel, Red Lion.

## Gettin' the Message

**BEDFORD COUNTY**—Last season the Everett Merchants Association joined the Game Commission to remind hunters to hunt safely. Over 250 safety posters were placed in store windows and near checkout areas. Did it help? Well, I am pleased to report there was not a single hunting accident in this county in 1985. —DGP David Koppenhaver, Everett.



## Next Time — The Knife

**WARREN COUNTY**—After 14 years in this business I thought I had heard everything, but I was wrong. Last season a hunter in my district asked if he could get a second deer tag. I asked why. He said he had shot a doe and tagged it, but decided to postpone field-dressing chores until he returned home. He loaded the deer in his vehicle and drove home. When he pulled the deer out, it came to life, hit the ground running and took off with the tag still in its ear. So, if you should happen to see a doe with a tag in its ear, I know the fellow who might want to try for it again next year. —DGP Bill Shultz, Youngsville.

## Heavy Weight

**UNION COUNTY**—Randy Davis, Millmont, claims a fellow took a raccoon in Snyder County that weighed 52 pounds! —DGP Bernie Schmader, Millmont.

## Cellar Dweller

**BRADFORD COUNTY**—A couple of months ago I was called about a raccoon in a lady's cellar. I set a box trap. After several quiet days, the raccoon found the trap and took the bait, but wasn't captured. The homeowner baited the trap daily, but the animal had figured how to steal the bait and then open the trap door. After about two weeks I was finally able to get to the trap before he had time to escape. I took him to my house where my daughters asked what my intentions were. I assured them he would be released where he would stay out of trouble. However, I didn't release him soon enough because the raccoon got out again and took up residence in—where else?—my cellar. For two weeks we cleaned up broken canning jars and other debris. I finally did catch him, but I couldn't find another person who had a cellar and wanted a raccoon. —DGP Edward N. Gallew, Wyalusing.

## Why Me?

**VENANGO COUNTY**—The past deer seasons left one landowner wondering, "Why me?" On the last day of buck season, a wounded doe wandered on to her lawn and died. Two days later, on the first day of antlerless season, her horse was shot in the pasture. Then, on the extended day of that season, a hunter shot from the roadway, adjacent to her house, in the safety zone.

All the violators involved in these incidents were apprehended and prosecuted under the recently enacted property damage protection law. This law allows the court to appoint a referee and assess property damages before sentencing by the local Magistrate, rather than forcing a person to file a civil suit to be reimbursed for damages, as was the case under the old law. At this writing, the lady's land is still open to hunting. —DGP Leo Yahner, Franklin.





### Timing

**LYCOMING COUNTY**—When I talk to hunters during bear and deer seasons, I'm always amazed to hear about other game they've sighted. During bear season, everyone is seeing bucks and turkeys, and during buck season everyone sees bears and turkeys. In turkey season everyone complains about the lack of turkeys, and in bear season they say we trapped and moved all the bears. — DGP Dan Marks, Proctor.

### Inconsiderate

**SNYDER COUNTY**—Between 5 and 5:30 on the first morning of buck season, my wife and the wives of two of my deputies were awakened by ringing telephones. The callers wanted to know where their husbands could go hunting. Although our wives didn't tell the callers where to send their husbands, they all had the same location in mind. — DGP John Roller, Beaver-town.

### Motorized

**MCKEAN COUNTY**—When I stopped at my house at noon on the first Saturday of buck season, I received three phone calls reporting people hunting from three-wheelers. Just what kind of hunters do we have anymore? It seems fewer and fewer like to walk in the woods. — DGP John Dzemyan, Smethport.

### And Many More Bucks

**ADAMS COUNTY**—Many incidents demonstrate the loyalty and dedication of our deputy force. Last year, Ed Furhman of McSherrystown, a well known member of my deputy force, retired after 38 years of service. This past fall, Ed bagged a nice buck, which made him mighty pleased and proud. We were happy, too, because that was the first time Ed had gone buck hunting in 38 years. During all those years Ed placed a higher priority on serving the sportsmen of Pennsylvania than on pursuing that elusive buck. Few are willing to make such sacrifices. We wish you many more years of happy hunting, Ed. — DGP Larry Haynes, Gettysburg.



### There's a Difference

**CLEARFIELD COUNTY**—While I was standing along a road, a truck pulled up and stopped. A man got out, walked over and asked me how he could get a permit to shoot from his vehicle. He felt that since he wasn't as young as he once was and couldn't get along in the woods too well anymore, he should be entitled to a special permit. I explained to him why he didn't qualify and left. Farther down the road I spotted a hunter several hundred yards in the woods. I walked down to check his license and found a much older gentleman sitting on a log—beside him was his walker. — DGP Don Zimmerman, Drifting.

## It'll Be Well Deserved

**CLEARFIELD COUNTY**—A young hunter from Curwensville shot a nice doe on the first day of the antlerless season, loaded it on a flat-bed truck and proceeded to his home a few miles away. When he proudly brought his mother out to show her the deer, it was gone. It apparently had bounced off the truck bed. Hurrying back over the route, the boy found only a blood spot where it had fallen from the truck. Whoever found the deer could have contacted the boy through the information on the tag, but he didn't. All the youngster got to enjoy was the heart and liver which he had in a bag inside the vehicle. He hoped the lucky person who "found" his deer gets indigestion. —DGP Jack Furlong, Ramey.



## Well Worn Trails

**WESTMORELAND COUNTY**—A local farmer became puzzled when he noticed a hunter standing in a damp area of an open field where he, the farmer, had never seen deer. He asked the hunter if he had seen anything. The hunter replied, "Not yet, but with all these tracks, it's only a matter of time." The farmer shook his head, wished the hunter luck, and left him standing alone in the middle of a sheep pasture. —DGP R. D. Hixson, Ligonier.

## They're Around

**CUMBERLAND COUNTY**—Despite being new here and not fully aware of what's taken place in the past, I was thoroughly impressed with the bucks harvested on the first two days of the season. In just three hours on opening day, a deputy and I checked over 25 deer on South Mountain. Three were 8-pointers. Almost every hunter we met had at least seen deer. Anybody who says there aren't any deer in this state just hasn't taken a walk lately. —DGP Greg Houghton, Manchester.

## Silent Majority

**CRAWFORD COUNTY**—I was attending a school Christmas play when a youngster greeted me with, "Got a 6-point." Because I wasn't in uniform, I did not immediately realize why he had greeted me, but I soon learned he had taken a hunter ed course and remembered me as one of the instructors. After a long season of dealing with game law violators, this youngster made me realize a lot of folks out there appreciate our work. —DGP Dave Myers, Linesville.

## The DGP and His Friends

**BUTLER COUNTY**—Some friends and I were driving by State Game Lands 95 when we noticed a van and a car parked along the road. The occupants were outside the vehicles talking. We returned to the spot a short time later and found a raging brush fire. It had already traveled into some small pines, but we were able to extinguish it. Near where the vehicles had been parked, at the most upwind part of the fire, we found the remains of a cigarette, indicating it had caused the fire. Not over 10 feet away, but spared from the fire, is a signboard welcoming visitors to the Game Lands. And in the center of the board is a poster of Smokey the Bear asking, "If not you, who?" —DGP Ned Weston, West Sunbury.



# Nearly \$5 Million In Furs

ACCORDING TO final figures compiled by the Game Commission, fur dealers paid Pennsylvania hunters and trappers \$4,961,453 during the 1984-85 marketing year. Fur returns were about \$1 million more than the previous year. More pelts were purchased, too, with 545,521 bought in 1984-85, compared with 470,572 the preceding year.

Although fur prices have been somewhat depressed in recent years, the 1984-85 total represents the eighth best in the state's history. Pennsylvania's best year for fur marketing occurred in 1979-80, when \$11.3 million was spent for pelts.

Increases were recorded last year on muskrats, opossums, beavers, raccoons and red foxes, while declines were noted in the purchases of skunks, minks, gray foxes and weasels. Dealers bought 188,246 raccoons, the top fur last year, for \$2,752,363, an average of \$14.62 per pelt.

Next in value were 263,875 muskrats, which brought \$978,820, an average of \$3.71 each. The 21,319 red foxes bought by fur dealers returned \$547,105, an average of \$25.66 each. Gray fox hides were the highest-priced, with 16,947 of them going for \$438,217, or \$25.86 each.

Other major fur items were 5,669 beavers, which brought \$97,132.61, or



**TRAPPING** is a popular activity with many Pennsylvanians, both youngsters and older outdoorsmen. The 1984-85 year was the eighth best in the state's history, with almost \$5 million in furs taken.

\$17.13 per hide; 4,765 minks which sold for \$77,532, an average of \$16.27 each; 43,759 opossums purchased for \$67,120, about \$1.58 each; 823 skunks which brought \$1,061, or \$1.29 each; and 118 weasels, which sold for \$101.95, or 86 cents each.

Figures represent only furs harvested in the commonwealth by hunters and trappers and bought by Pennsylvania licensed raw fur dealers. Furs shipped or transported out of state by the trapper and/or hunter, or held for his or her own use, are not included in the tabulation.

It is to be emphasized that these tabulations are for furs taken from November 1984, through March 1985, and purchased during the 1984-85 marketing year. Tabulations do not include furs marketed during the current fur-taking seasons.





## SCI Big Five Rifle

An elaborately decorated cased hunting rifle created by the David Miller Co. of Tucson Arizona, recently brought \$201,000 at Safari Club International's 14th annual convention, an all-time record for a firearm built in modern times.

The rifle, a 338 Magnum with extensive engraving and gold sculpting, is the fifth and final rifle in SCI's Big Five Classic Masterpiece Collection. Purchaser was Joe Bishop of Denver, who also purchased the second rifle in the series.

Called the Leopard Rifle, it is built on a one-of-a-kind Winchester M70 prototype action created by the U.S. Repeating Arms Co. to commemorate the 50th anniversary of the Model 70. The previous four rifles were built by David Miller, the Champlin Rifle Co., the Heym Co. of West Germany, and the Jaeger Co., then of Jenkintown, Pa.

## Books in Brief . . .

(Order from publisher, not from Game Commission)

**Olson's Encyclopedia of Small Arms**, by John Olson, New Century Publisher, Inc., 220 New Brunswick Rd., Piscataway, NJ 08854, 262 pp., \$22.95. This complete and up-to-date reference on the precise definitions of shooting terms will appeal to shooters, gun collectors and all others interested in firearms. Many photographs, illustrations and charts supplement the definitions.

**Grouse Hunter's Guide**, by Dennis Walrod, Stackpole Books, Cameron & Kelker Sts., Harrisburg, PA 17105, 192 pp., \$20.47, delivered. To many, the ruffed grouse is tops among game birds. Grouse thrive in the most inaccessible cover, they present the most challenging of targets, and they're unsurpassed as tablefare. Read here about the sport, the quarry, and all the associated aspects that make hunting ol' ruff unequaled.

**English Pistols**, by Howard L. Blackmore, Sterling Publishing Co., 2 Park Ave., NYC 10016, 72 pp., \$12.95. A concise historical account of the pistol's development, complemented with over 150 close-up photographs of pistols from the collection in the Armories of the Tower of London. The photos document the development of pistols from matchlocks made for royalty in the 1540s to autoloaders designed in the early 1900s.

**Audubon Wildlife Report 1985**, edited by Roger DiSilvestro, National Audubon Society, 950 Third St., NYC 10022, 671 pp., softbound, \$16.50. This encompassing volume is meant to serve as a ready reference for students, natural resource personnel, politicians and others who need information on current wildlife management practices and the myriad federal and state agencies responsible for administering them. Chapters, each written by an authority on the subject, explain federal agencies and programs. Then come a dozen accounts describing work being accomplished with various selected species such as the grizzly bear and bald eagle. This is the first of what's going to be an annual report, and if this one exemplifies what's to come, Audubon has embarked on a most significant undertaking.



# Information Compiled from 1985 Hunting Accident Report

## Casualty

Fatal		
Self-Inflicted .....	2	
Inflicted by others .....	15	
Non-Fatal		
Self-Inflicted .....	40	
Inflicted by others .....	71	
Total .....	128	

## Weather Conditions

	F	N-F	T
Clear .....	6	64	70
Overcast .....	7	26	33
Fog .....	0	1	1
Rain .....	2	18	20
Snow .....	2	2	4
Not Reported .....	0	0	0

## Sporting Arm Used

	F	N-F	T
Shotgun .....	6	59	65
Rifle .....	10	43	53
Revolver .....	0	6	6
Muzzleloader .....	0	3	3
Compound Bow .....	1	0	1

## Light Conditions

	F	N-F	T
Dawn .....	0	4	4
Daylight .....	14	97	111
Dusk .....	2	8	10
Dark .....	1	2	3

## Species Hunted

	F	N-F	T
Deer			
Regular Season .....	9	33	42
Muzzleloader .....	0	3	3
Archery .....	1	0	1
Turkey			
Spring .....	2	6	8
Fall .....	1	16	17
Bear .....	0	1	1
Pheasant .....	0	5	5
Squirrel .....	0	16	16
Dove .....	0	2	2
Grouse .....	1	6	7
Woodchuck .....	2	5	7
Fox .....	0	1	1
Waterfowl .....	0	1	1
Rabbit .....	1	14	15
Raccoon .....	0	1	1
Crow .....	0	1	1

## Cause of Accident

	F	N-F	T
Sporting arm dangerous			
position .....	3	14	17
Accidental discharge .....	2	24	26
Ricochet .....	0	7	7
Stray Shot .....	2	5	7
Victim in line of fire .....	4	29	33
Hunter Slipped and/or fell ..	0	8	8
Hunter dropped sporting			
arm .....	0	3	3
Shot in mistake for game ...	6	19	25
Sporting arm defective .....	0	2	2

## Place of Accident

	F	N-F	T
Field .....	1	21	22
Woodland .....	12	64	76
Marsh or Bog .....	1	3	4
Road or Highway .....	2	19	21
Vehicle .....	1	4	5

## Ages of Persons Inflicting Injury

	F	N-F	T
12 to 15 years of age .....	5	12	17
16 to 20 years of age .....	2	28	30
21 to 50 years of age .....	5	53	58
Over 50 years of age .....	3	10	13
Not Reported .....	2	8	10

## Summary of 1985 Hunting Accidents

FATAL .....	17
NON-FATAL .....	111
TOTAL .....	128

NOTE: The average hunting experience per offender is 14 years. Based on 1,148,679 hunting licenses sold during 1985, the accident rate per 100,000 licensed hunters is: fatal—1.48, non-fatal—9.66, total—11.14. In no instance was a hunter wearing fluorescent orange shot in mistake for game, except in four cases in which the safety color was not visible to the offender.

## Game Commission Publications & Items

Quantity	Books	Price
_____	BIRDS OF PENNSYLVANIA, by James & Lillian Wakeley .....	\$ 10.00
_____	THE WINGLESS CROW, by Charles Fergus .....	\$ 10.00
_____	MAMMALS OF PENNSYLVANIA, by J. Kenneth Douth, et al .....	\$ 4.00
_____	GONE FOR THE DAY, by Ned Smith .....	\$ 4.00
_____	PENNSYLVANIA WILD GAME COOKBOOK .....	\$ 4.00
_____	DUCKS AT A DISTANCE .....	\$ 2.00
_____	WOODLANDS AND WILDLIFE .....	\$ 2.00
_____	PENNSYLVANIA TRAPPING MANUAL, by Paul Failor .....	\$ 3.00

### Working Together for Wildlife Collectibles

_____	1986 ART PRINT "Country Lane Kestrel" .....	\$125.00
_____	1986 KESTREL PATCH .....	\$ 3.00
_____	1986 KESTREL DECAL .....	\$ 1.00
_____	1985 BOBCAT PATCH .....	\$ 3.00
_____	1985 BOBCAT DECAL .....	\$ 1.00
_____	1984 BLUEBIRD PATCH .....	\$ 3.00
_____	1984 BLUEBIRD DECAL .....	\$ 1.00
_____	1983 OTTER DECAL .....	\$ 1.00
_____	1982 OSPREY DECAL .....	\$ 1.00
_____	1981 FLYING SOUIRREL PATCH .....	\$ 3.00
_____	1981 FLYING SOUIRREL DECAL .....	\$ 1.00

### Wildlife Management Areas

_____	PYMATUNING WATERFOWL PATCH .....	\$ 2.00
_____	PYMATUNING WATERFOWL DECAL .....	\$ 1.00
_____	MIDDLE CREEK WATERFOWL PATCH .....	\$ 2.00
_____	MIDDLE CREEK WATERFOWL DECAL .....	\$ 1.00

### Pennsylvania Bird and Mammal Charts

_____	Set 1 (4 charts) 20" x 30" .....	\$ 4.00
_____	Set 2 (4 charts) 20" x 30" .....	\$ 4.00
_____	Set 3 (8 charts) 11" x 14" .....	\$ 4.00
_____	GAME NEWS Cover Prints (4 by Ned Smith) 11" x 14" .....	\$ 4.00
_____	State Symbols Chart 20" x 30" (Deer, Grouse, Hemlock, Laurel) .....	\$ 2.00

### SPORT Items

_____	Bronze SPORT Tie-Tac/Lapel Pin .....	\$ 3.50
_____	SPORT License Plate .....	\$ 4.00
_____	SPORT Patch .....	\$ 1.00

### GAME NEWS

_____	GAME NEWS Binder (Holds 12 Issues) .....	\$ 5.00
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### Waterfowl Management Stamps (Voluntary)

_____	1986 Waterfowl Management Duck Stamp .....	\$ 5.50
_____	1985 Waterfowl Management Duck Stamp .....	\$ 5.50
_____	1984 Waterfowl Management Duck Stamp .....	\$ 5.50

Mail orders along with remittance to Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567. Checks should be made payable to Pennsylvania Game Commission.

DO NOT SEND CASH

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# young artists page

Canada Goose  
Keith Eshbaugh  
Herminie, PA  
Yough Senior High School  
Grade 12



Turkey Gobbler  
Donald Bowers, Jr.  
Dayton, PA  
Dayton Junior High School  
Grade 7



# *The Blue Baron*

**I** DON'T remember who said it, but when one of my hunting pals called a wild turkey the "Blue Baron," the name stuck. It fit. Strutting like a lord, crowned by a blue head, the wild turkey is certainly a noble bird. But there's also a bit of cartoon about it, a little tomfoolery in the tricks it uses against hunters. An encounter with the Blue Baron is much fun and can be as frustrating as a match between the Red Baron and Snoopy. Both "barons" are tops at underhanded resourcefulness and, like Charlie Brown's beagle, we too shake our fist at the sky and vow to be back another day.

## **Major Problem**

The Blue Baron's major problem with being taken seriously is the fact that it's a bird. I'm an avid hunter and admirer of the Baron, but I've yet to see a mount of a wild turkey that didn't look slightly silly. It's not the taxidermist's fault. Take a non-hunter to a mounted game display and he'll "ooh" and "ahh" over the obvious beauty of an elk bull or a whitetail buck. But the poor turkey, with its nearly naked blue head and lumpy wattles, is likely to draw a laugh.

To appreciate the turkey, one has to hunt it. Its suspicious nature and unpredictability are legendary. Its finest moment is in the glory of the full strut. Yet, in the midst of this noble show, the turkey may stop, stretch its scrawny neck, sputter, cluck and run away—with all the finesse of a barnyard chicken. What slapstick! What a jokester! Cartoon and charisma, that's the Blue Baron.

The Baron even treats its biggest fans, its hunters, in a two-sided way. The turkey can make us look like fine woodsmen, skillful Nimrods, then, in a Jekyll/Hyde turnabout, show us off as foolish amateurs. As for myself, I've known what it is to be both a fool and

a hero, all before 6 o'clock in the morning, thanks to a turkey.

I'd just opened the car door to a pink dawn and stepped out into the cool May air, when I heard the gobble. My hunting pard, hubby Bob, had just loaded his shotgun when the bird sounded again. It was over a small ridge and on the hill beyond.

When we topped the ridge, Bob motioned that I should take a position to the left. We often team up on turkeys. He's the better caller and, just in case the Baron's up to one of his many schemes, we can cover twice the shooting area by hunting double. Bob took a stand where he could watch for a bird sneaking over the knoll.

The bird gobbled as soon as we sat down. Bob worked him my way, along the opposite ridge. Everything was going perfectly. Then silence. There's no quiet quite like that when a gobble clams up. It's the part of turkey hunting I've never figured out, and the Baron's trump ace. Has he gotten suspicious and left or is he, even now, making a beeline, or rather birdline, straight toward me? The longer the silence spins out, the more my confidence wanes.

I glanced toward Bob's position. With the distance, dimness and his camouflage, I couldn't see him, but I knew approximately where he was. As I watched, four turkeys appeared just beyond him, coming around the knoll.

## **Another View...**

**by Linda Steiner**



I held my breath, waiting for his shot. The birds continued uphill and I finally had to let the breath out. What happened to the shooter? Had he fallen asleep? Had turkey fever struck? Then the birds stopped. They seemed to hesitate around some object on the ground. Suddenly one putt-putted in alarm. A dark shape rose upward from their midst, brandishing a shotgun. Turkey scattered by land and air. When the last wingflap died away, I trudged over to hear the explanation, doubting any was possible for missing any easy chance like that.

Bob said he'd heard the gobbler coming, but the sound must have echoed around the knoll. Convinced that the Baron was pulling one of his favorite tricks, circling to get above the caller, Bob rolled on his belly, shotgun ready for an uphill shot. He waited. Nothing. Then, at the edge of his vision, there was a movement. Rolling his eyes, he looked straight into the dark gaze of a hen, not two feet away. Slowly he turned his head to the other side and there was another bird, just as close, stretching its neck higher and higher in alarm. Just behind, he could hear more turkey feet—the rest of the gang coming—and he was helpless.

### Get Up Earlier

Suddenly the birds broke. Bob said he'd jumped up to shoot, but couldn't locate the gobbler in the melee. A moment before, he could have reached out and grabbed the tom; now it had gotten away without a shot. It wasn't quite 5:30 in the morning, but it appeared we'd have to get up a lot earlier than that to fool the Blue Baron.

Though everything we knew about the Baron, and the ploy he'd just used, said the bird should have been long gone, Bob called again. "Gobble-obble-obble" was the answer. We looked at each other and the same thought hit: Get down, that bird's less than a hundred yards away! We flopped on our stomachs where we were, with just a few high weeds in front of us. Bob yelped again, and the



Bob Steiner

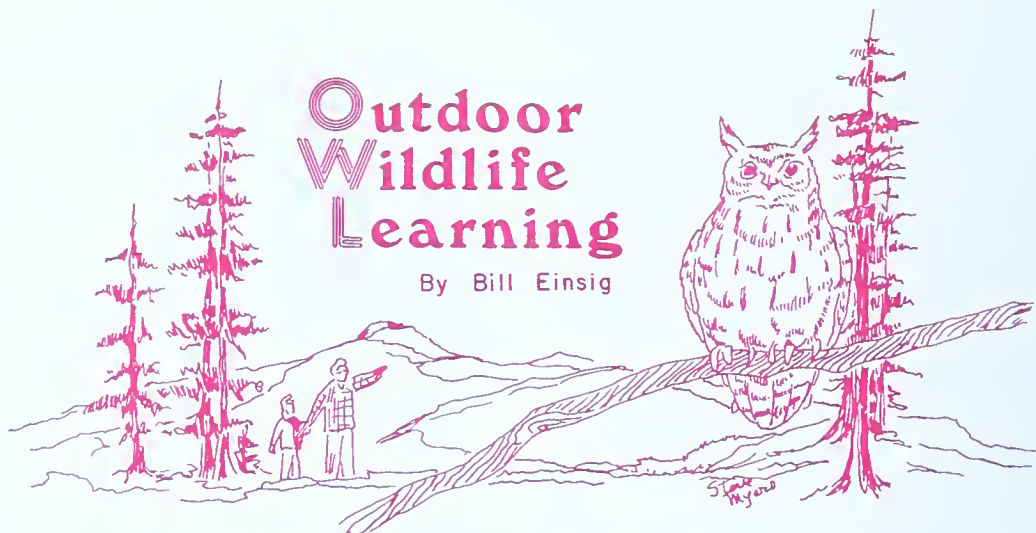
**A HUNT can be laudable or laughable—and sometimes it's hard to tell which—but it's never dull. Not when the Blue Baron is involved.**

bird appeared as if by magic, just across the little creek. Then he strutted for us.

By now the sun was just topping the ridge. It glinted on the glossy dark breast, lighting the fully fanned tail, turning the bird's head to the colors of fire and ice. All around were the golden grasses of last year, the first greens of spring and a sprinkling of wildflowers. It was a fairytale setting for a gobbler hunt. I'd have given anything at that moment to have a movie camera rather than the shotgun.

But back to business. The gobbler lowered its finery and hopped across the creek into the shadowed side of the valley. As he came into range, Bob whispered, "If he passes to the left of the blowdown, you take him. I'll take the right." That sounded fair. The bird reappeared, on the left, my shotgun boomed and Bob raced to pick up my bird.

Today, when I recount that hunt, I'm not sure if that morning was laudable or laughable. One thing for certain, the hunt wasn't dull. It never is, when the Blue Baron's involved.



## Protector of Soil and Water

**S**TAND IN an open field during a moderate shower and the rain will soak to your skin in a few minutes. But stand in a woodland and the same shower might miss you altogether. The forest canopy forms a huge, leaky umbrella that protects the forest and its inhabitants from the impact of falling raindrops.

It's the forest soil that benefits most directly from this protection. Raindrops intercepted by the leafy crowns drip slowly from sagging leaves, or trace along stems and trunks, to the forest floor. Here, they are again intercepted by a thick layer of litter—decaying leaves, twigs and other organic matter. The water is dammed by the litter and held in countless tiny pockets, giving it time to infiltrate the soil layers beneath.

Meanwhile, the open field suffers a radically different chain of events. Drops of rain, after falling thousands of feet, smash into the bare soil and erupt with explosive force. Each drop sends a splash of muddy water into the air, at times, as high as two feet. The soil breaks apart on impact and the tiny particles are carried aloft only to land some distance away. As much as 100 tons of soil per acre can be splashed into the air in one storm.

On level ground, splash erosion produces little real movement of soil. The amount of soil splashed out of one area is balanced by the amount splashed into it from another. But on hilly ground, there is a general shifting of soil down the slope. Ultimately, the crest of the ridge is stripped of topsoil, leaving only exposed rock and infertile subsoil in its place.

Once on the soil surface, rain water

either soaks into the ground or runs off. In the forest, the protective mulch slows runoff and allows more water to pass into deeper soil layers. The bare field, however, has no such litter to slow water. Within minutes after a rain begins, small rivulets start to scour their way down the slope, carrying even more sediments to pollute nearby streams. Meanwhile, the soil just a few inches below the surface remains dry because no water has filtered down to it.

Rainfall has still another bad effect on bare soil. As the clumps of soil are blasted apart, the separate tiny particles settle into a new arrangement where they fit tightly together, sealing the soil surface with a nearly impermeable crust. Because less water infiltrates the soil, more runs off, which can lead to flash floods in many areas downstream.

The forest soil is not broken apart by the direct impact of raindrops. It remains open and porous to water. In every cubic foot of forest soil thousands of living and dead roots both loosen and hold the soil. Such soils absorb water and release it slowly. As a result, water from each rain remains in the soil longer, is more available for plants and wildlife, and is less likely to cause troublesome floods.

Of course, forests are not the only type of vegetation that can protect soil. Almost any shrub, mulch, stubble or ground cover will to some extent shield the soil and absorb the shock of falling rain.

But forests were and still are throughout much of our state, the prime cover. As that cover was removed by early settlers for cropland, pasture and homes, the forest



soil was exposed and the potential for accelerated erosion increased dramatically.

Despite the use of today's best conservation practices on farmland, erosion rates on croplands are worse than those on forests. One study showed bare soil eroded 2.5 times faster than soil in a cotton field, 4000 times faster than pasture, and 32,000 times faster than virgin forest land.

Forests truly do have multiple uses, and not only in the sense of material products that we can use. They also safeguard vast acreages of topsoil that otherwise would soon become tons of sediment in the inevitable flow of water making its way to the ocean.

## Activity: Splash Erosion

Several easy activities clearly demonstrate the erosive force of falling water droplets. All are messy, so should be done outdoors.

1. Fill a tray or shallow box with firmed soil and place small stones or coins on the surface. Set the tray on a sheet of newspaper. Then, hold a fine sprinkler several feet above the tray and create an artificial rain.

Examine the condition of the soil surface after the rain. It will be found that the stones or coins protected the soil beneath them and, because it did not splash away, they appear to be perched atop small pillars of soil.

2. Try the above activity again, but this time add a mulch of dried grass or straw to half of the tray. Which half showed more erosion? Which half lost more soil?

3. Splashboards are designed to show the explosive effect of rain on soil. They can be simple or fancy. The fancy type might be a wooden stake several feet long and painted white, with black lines marking feet and inches above ground level. It might even have a small shield at the top, like a little roof, to prevent rain from washing the stake clean. Simple splashboards can be a sheet of paper, or an index card, held vertically by a small stick or pencil.

Try them in several ways:

- a. Put one in bare soil somewhere on the school lawn, another in a grassy area. After a rain, compare the boards. Which area had more splashing soil? How can you tell? Why? In which area was erosion occurring more rapidly?

- b. Put one splashboard under a tree and another in the open. Any difference? Why?

- c. Dig a long, shallow pit and tamp the soil firmly. Cover half the pit with grass cuttings, straw, or some other mulch. Put a splashboard in each half. Use a sprinkler to make rain and see which splashboard is dirtier.

- d. Give every student a simple splashboard just before a rain and challenge them to stick theirs in the school lawn where splash erosion will make it the dirtiest, or where it will stay the cleanest.

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A. D. LEWIS, of Tower City, with the white-tail he took last season at age 99. It seems doubtful that there is an older successful deer hunter in the state—maybe in the country. This was Mr. Lewis's 55th deer, and 5 of the last 6 were taken with the bow. "Trap & Field Magazine" says Lewis is the oldest trap-shooter in the U.S. He has done much other hunting in his lifetime, and collected trophies such as moose, Rocky Mountain goat and pronghorn antelope. We're sure all Pennsylvania hunters extend their best wishes to Mr. Lewis.



**M**AY IS A month of new beginnings. Wildlife babies begin to show up in numbers and in places where they haven't been seen since last spring, rapidly filling the various ecological niches.

This celebration of life, however, is not without its problems. Baby songbirds, young cottontails, Canada goose goslings, and fawn deer, all able to survive through countless generations in the past without the aid of mankind, suddenly have to be "rescued" from the perils of the outdoors and brought in the house to be incarcerated in a cardboard box and bottled.

One of the jobs I dislike the most as a game protector is having to relieve well-intended individuals of young wildlife which they have uprooted from their native habitats. Although a person who is in possession of such an animal has broken the law, it is the wildlife officer who is oftentimes portrayed as the villain when he has to confiscate someone's illegal pet.

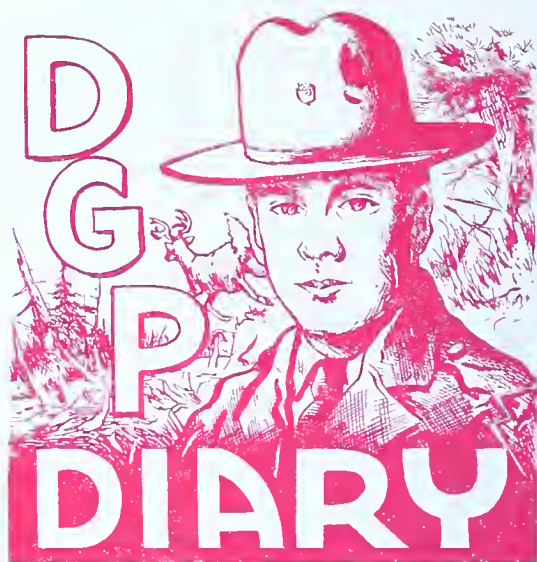
This spring, do everyone—including wildlife—a favor. Leave the baby birds and animals in the woods where they belong.

*May 1 and 3*—The American woodcock is an important migratory gamebird. Its numbers, however, are steadily decreasing—not only in Pennsylvania but throughout its range in northeastern United States. Possible reasons for the decline include habitat loss and deterioration, pesticides, and overhunting. To determine the exact cause of the problem, stepped up research is being conducted on mortality factors and biology of the bird. As part of this study, game protectors throughout the state have been asked to determine if breeding populations of woodcock occur in their districts.

Both of these evenings at dusk, I visited a spot in Newlin Township where I had seen woodcock the previous fall. Although I stayed until dark both nights, I failed to hear or see any timberdoodles conducting their spring courtship display. I'll try a different location later in the month.

*May 4*—Met with DGP Lou Fortman this morning and together we patrolled for turkey hunters throughout the county. We found hunting pressure almost non-existent wherever we went.

*May 6*—After a morning in the office, picked up and disposed of a roadkilled



**By Keith Sanford**

**District Game Protector  
Chester County**

deer in the Coatesville area.

In the evening, met with several deputies from Delaware and Chester counties at the McKinney farm outside of West Grove. They had been unable to attend last month's shoot. Tonight was the makeup date and their turn on the range with sidearm and shotgun.

*May 8*—I spent the morning picking up and disposing of four roadkilled deer in the Coatesville, Unionville, and Nottingham areas. Deer/vehicle collisions are a major form of whitetail mortality in Pennsylvania. In 1984, 745 deer were harvested by hunters in Chester County, while automobiles killed 401.

In the afternoon, presented a follow-up outdoor program to the first grade students at the Mary D. Lange Elementary School in Kennett Square. I placed several mounted specimens along a woodland trail near the school and as we walked, discussed how each animal was adapted to its particular habitat. I was impressed with how much the students had retained from my first visit back in February.

*May 9*—This evening, I attended the monthly meeting of the Shadyside Farmers-Sportsmen's Conservation League in West Chester.

*May 10*—Under provisions of the Penn-



sylvania Game Law, if an individual is cited for a violation of the state's wildlife code and fails to respond to a citation or make payments on a fine after either being found or pleading guilty, his hunting and trapping privileges within the commonwealth can be revoked indefinitely. This morning, I met with District Justices Crane and DiFilippo in West Chester and Kennett Square and requested they sign the necessary forms to revoke the privileges of two individuals I've brought charges against and who failed to meet their legal obligations.

In the afternoon, presented a program to a fifth grade environmental education class at the Westtown School, then delivered hunter education supplies to one of my volunteer instructors in West Chester for our upcoming spring class.

*May 13*—Spent the bulk of the day writing and typing an article for my biweekly outdoor newspaper column.

In the evening, visited another location in Newlin Township where Deputy Cary Haupt informed me that I might locate some singing woodcock for my survey. I positioned myself on a hillside overlooking a swampy tangle and mentally prepared myself for a quiet but uneventful watch. As dusk settled over the valley, I heard the distinct sound of twittering woodcock wings. Looking skyward, I made out the rapidly disappearing form of a timberdoodle as it spiraled upward into the darkening sky. At the apex of its flight, it plummeted earthward. Upon touching the ground, it started its nasal-sounding peent, peent, peenting. I watched the bird's repeated performances until darkness dropped its curtain on the show.

*May 15*—Even though trapping season has been closed for over three months, I

received a report today of some activity in the Pomeroy area. The caller, angered at seeing the illegal sets, had pulled the traps and tossed them into a nearby pond, destroying all evidence of the violation.

If you observe a game law violation of any nature, the best thing you can do is to leave any and all evidence exactly as you find it. Let the investigating officer make the decision on how it is to be handled.

*May 18*—This evening, attended the bi-monthly meeting of the Chester County Federation of Sportsmen's Clubs in West Chester.

*May 22*—Started the day by going to Camp Tweedale in Lower Oxford Township. Each spring, the sixth grade students from the Devon Elementary School spend a week in the country where their studies are centered around environmental education. As part of their program, professionals representing a variety of resource agencies are invited to camp to share in the instruction.

After hosting a series of wildlife walks at the outdoor camp, I headed to the North Brandywine Junior High School outside of Coatesville to look into a large die-off of blackbirds. Incidents such as this occur rather frequently during the spring when birds feed on recently planted seed which has been treated with pesticide. It's hard to say just how much of our wildlife dies like this every year but is never detected.

*May 23*—Gave a program this morning to an environmental education class at the Unionville High School.

In the afternoon, delivered a red fox to the state lab in Lionville for rabies testing. The animal had been illegally taken from the wild and kept in captivity as a pet for several days. Because human contact had been made with the pup, I felt it was in the best interest of all those involved to have it tested. Rabies is only one of many diseases wild animals can carry. Besides being illegal to remove wildlife from their natural habitats, it can also be unhealthy.

*May 28*—Each spring, I conduct a mourning dove call-count survey for the U.S. Fish and Wildlife Service. Starting one-half hour before sunrise, I travel a pre-determined 20-mile survey route, stopping every mile to record the number of doves I hear cooing. Birds observed as I travel along the route are also noted. The data,



when combined with survey information gathered across the country, gives state and federal wildlife managers a good indication of mourning dove population trends nationwide. In comparing the results of today's survey with the figures from last year, it looks as if mourning dove populations are slightly up in southern Chester County.

In the afternoon, I met with an employee of Longwood Gardens near Kennett Square. They have some Canada geese in the botanical gardens which have been fouling the sidewalks with their droppings. The birds will be live-trapped and relocated next month, so I wanted to get a

count of the number of geese involved for our trapping crew.

May 29—Met with the county health department, SPCA, and the county dog law enforcement officer. With rabies becoming a serious wildlife problem in certain portions of the state, the health department wanted to open communication channels with all of the agencies within the county which could become involved in the control of this disease should an outbreak occur in Chester County. At the conclusion of our meeting, each agency had a better understanding of the others' responsibilities.

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## *Books in Brief . . .*

(Order from publisher, not from Game Commission)

**Appalachian Trail Guide: Pennsylvania**, edited by Maurice J. Forrester, Jr., Keystone Trails Assoc., P.O. Box 251, Cogan Station, PA 17728, 139 pp., \$4.25, delivered. A completely revised edition describing the 228-mile segment of the Appalachian Trail in Pennsylvania. In addition to trail descriptions that include shelter locations, water sources, potential hazards and other aspects, there are sections on historical and natural points of interest. This guide is a must for everybody who is considering hiking this portion of the AT, and it's one of ten such guides covering the entire trail.

**Meet the Moose**, by Leonard Lee Rue III, with William Owen, Leonad Rue Enterprises, R.D. 3, Box 31, Blairstown, NJ 07825, 78 pp., \$10.95, delivered. Although meant for young readers this book is so complete—covering all the basics of moose biology, behavior, and its status—that it will appeal to readers of all ages. The quality of the photographs is just what one would expect from today's most accomplished outdoor photographer.

**The Book of the Black Bear**, by Richard P. Smith, New Century Publishers, 220 Old New Brunswick Rd., Piscataway, NJ 08854, 249 pp., \$18.95. This comprehensive book presents to the general public for the first time a lot of the information scientists have discovered about the black bear over the past decade. Natural history information is followed by a variety of hunting techniques, and then trophy preparation and care. A good book on a popular subject.

**The Gordon MacQuarrie Trilogy**, by Gordon MacQuarrie, Willow Creek Press, P.O. Box 2266, Oshkosh, WI 54903, \$45. In this set are 53 of the author's "Old Duck Hunter" stories about a fictitious sportsmen's group in Wisconsin. Many of these stories first appeared in various sporting magazines in the 1930s and '40s, and have since become classics. It's said the author was among the first outdoor writers who could combine humor and information into entertaining yarns. The set consists of "Stories of the Old Duck Hunters & Other Drivel," "More Stories of the Old Duck Hunters," and "The Last Stories of the Old Duck Hunters." Each volume is available separately for \$15 each.



IN LATE winter, when the drab days start to wear on me, I turn to my bookshelf for reassurance: the month of May as presented by Ned Smith in *Gone for the Day*. May, I am quickly reminded, is grouse drumming and whippoorwills calling and mountain laurel pushing out its showy blooms; May is moccasin flowers, scarlet tanagers, new oak leaves, toads, fox pups, and doe deer heavy with fawns.

May, to my way of thinking, is Ned Smith Month. Last May, Ned and I were to have met at his Millersburg home to go hiking and nature snooping and to otherwise get ourselves gone for the day. Ned would have a break from his heavy workload; I would write a "Thornapples" installment telling GAME NEWS readers what he was up to these days.

On April 22, Ned died. It was completely unexpected, and I stood outside my house with my hand over my mouth hearing the news—my neighbor, who also knew Ned, had driven up to tell us—while all around in the leafless trees birds called and insects keened in the strengthening spring sun. April ended and along came May, full to bursting with life, as always.

Ned Smith, as most outdoor-loving Pennsylvanians know, was an artist and a writer. He had no formal training in either craft, and he excelled at both. He is best known as a painter of wildlife subjects. This, from a personal sketch he wrote some years back: "I paint realistically, as do most wildlife painters. Because of my background in illustration, I work in many mediums—watercolors, acrylics, pen and ink, pencil, an occasional oil, and numerous combinations."

Ned was a thin man, balding, of medium height; if you passed him on the street you would never suspect he was an internationally known artist. You would never get a notion of his fame when you met him, either. He was friendly and softspoken, quick to thank a person who praised his work.

Ned's favorite artists give a clue to

his realistic and outdoors bent. He liked Carl Rungius, Frederic Remington, Lynn Bogue Hunt, Ogden Pleissner, Lassell Ripley, Francis Jacques, and Winslow Homer. I have heard him say good things about the Wyeths. Perhaps his all-time favorite artist was Charlie Russell, a turn-of-the-century Montana cowboy who painted what he knew best: ropings, brandings, Indians, horses, hunting.

Ned Smith painted what *he* knew best, the wildlife of Pennsylvania, especially the creatures of the rolling farmland and wooded ridges around Millersburg, along the Susquehanna River north of Harrisburg. Born and raised in Millersburg, Ned was an unashamed stay-at-home. He and his wife Marie traveled—the Rocky Mountains, Florida, the desert Southwest—but he loved being in his homeland. He wrote of his illustrated column "Gone for the Day," which ran in the GAME NEWS from 1966 through 1969: "I hoped it would prove that the natural world at one's doorstep can be as exciting as Yellowstone National Park or the Everglades."

Ned's paintings capably rekindled that excitement for use: a goshawk that has just killed a bluejay, a woodcock flushing from the alders, a pair of nesting bluebirds, a cautious buck.

Ned's color work earned him great fame. In 1971 he had a one-man show



at the American Museum of Natural History in New York. He painted covers for *National Wildlife* and worked for *National Geographic*, *Audubon*, and many other magazines. When he died, Ned was at the top of his profession: a painter whose works were used for limited edition prints. Many of those paintings ran as GAME NEWS covers.

Ned was a meticulous worker. He examined, sketched, and made notes on plants and animals in the field. He took thousands of color slides to verify details. If a Ned Smith sharp-shinned hawk had 16 tailfeathers, you could be sure that a real sharp-shinned hawk had 16 tailfeathers. Ned's colors were vibrantly real.

### Pen and Ink Sketches

Personally, I prefer his pen-and-ink illustrations to his color work. I have on the wall a whitetail buck that Ned did for me. The deer, standing in snow behind scrub oak, has a symmetrical 8-point rack, which Ned drew from a slide I sent to him. (The real rack hangs above the pen-and-ink deer.) As

in all of Ned's pen-and-inks, animal aliveness is arrested in the cross-hatching, the interplay of fine black lines. Strokes left out—on the antlers, the side, the neck—become as important as those put in. It is a spare, understated style, incredibly evocative.

That Ned had mastered pen-and-ink completely is proven to me time and again in the field. I see a red squirrel dart across an opening and leap for a tree, and something clicks: I have seen just such a red squirrel before: ears alert, front legs outstretched, tail fluffed jauntily, frozen in midleap by Ned's pen. Or a buck, launching himself into flight, tail flared, rump muscling, forelegs tucked, ears laid back. I've seen dozens of Ned Smith deer in the woods around home, feeding, scratching, snorting, stamping, rubbing their antlers on saplings.

I owe a debt to Ned Smith the writer. I remember, as a teen-ager, picking out the GAME NEWS from the library rack (it was always the most tattered magazine there) and turning to "Gone for the Day." It was





exciting reading. I followed Ned onto Peter's Mountain where we hunted bucks. I trailed him into Cummings Swamp, both of us on the lookout for the first shoots of skunk cabbage. I tagged along when he wandered down a spring-fed run near Mahantango Mountain, overturning stones to uncover mayfly nymphs. And I shared the binoculars with him on a fine May morning, watching flickers pursue their bowing, whickering courtship.

### Excellent Writer

Later, I became a writer myself and read "Gone for the Day" more critically. I did not find the column lacking. Ned Smith was an excellent writer. His prose was lean, vigorous, honest, and unpretentious, with vivid descriptions that could only have come from countless hours outdoors. I loved his few, but telling, similes. A porcupine that had struggled against being manipulated into position for photographing, picking up unsightly leaves and grass on its quills, was, in Ned's words, "an animated compost heap." A hognose snake, bluffing ferocity, looked like "a wide black belt with a little curl at one end and a leering face at the other."

For all his humility, Ned was an opinionated man, even a little prickly when it came to nature, quick to point a finger at environmental abuse or people's disregard for wildlife. But what really made his writing come alive for me was his perpetual sense of delight, shared without a trace of self-consciousness. Ned knew we would be as excited as he was with a hellbender hauled squirming out of a creek—a sluggish, flat-headed, gray-brown, outsized salamander—and, of course, we were.

I first met Ned soon after I became a staff writer for the GAME NEWS. He had come to the Game Commission's Harrisburg office to deliver a painting. I found him an affable, open man with a quick smile, as interested in me, it seemed, as I was in him. He complimented me on my writing—heady

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stuff, since in many ways I idolized him.

Later I got to know Ned better. We went out in the field together several times around Millersburg. Once, in late winter, we poked around on a State Game Lands. When I mourned the loss of a forest to the gypsy moth, Ned told me how much he was looking forward to seeing the cavity-nesting creatures that soon would occupy the rotting snags. He showed me voles' nests and great horned owl castings (breaking the pellets open and identifying, from the bones inside, the creatures that the owl had eaten) and a slew of animal tracks in the patchy snow. He called in a tufted titmouse by whistling; the bird came spoiling for a fight, crest upraised like a shark's fin, eyes black as buttons. Another time Ned, my father, and I went mushroom hunting. My father is a mycologist by profession, and he was amazed at Ned's extensive knowledge of mushrooms. Having read "Gone for the Day," I wasn't so amazed.

Mushrooms, aquatic ecology, botany, birds, mammals, archaeology, geology. . . . Ned seemed to know something about everything. After he died, I visited Marie Smith in their home and learned that her husband

## The Wingless Crow

Chuck Fergus has selected thirty-three of his "Thornapples" columns for inclusion in a book entitled *The Wingless Crow*. Since it was published by the Game Commission in early 1985, it has attracted national attention. *American Forests* said: "[Fergus] loves the woods without idolizing them. He recognizes natural mysteries without forever trying to draw a great philosophical lesson. More often than not, his essays turn on clearly narrated, concrete events, and they turn our expectations around like an O'Henry story."

Order your copy of *The Wingless Crow* from the Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, Pa. 17105-1567. \$10 delivered.

had also been an inveterate gadgeteer. She showed me the tang safety he had created for his trusty Savage 99 deer rifle (the original safety was a button on the lever, which Ned, a left-hander, found awkward), and got out a deer-hunter's backpack he had sewn and several knives whose handles he had

carved out of exotic, beautiful woods.

About a week before he died, I got a letter from Ned. He spoke of a trip to the Everglades, where he and Marie had spotted a pair of bobcats and many swallow-tailed kites. The snail kites, he said, were not to be seen, perhaps having moved because the 'Glades were in the grip of drought—he grumbled at the sopping, irrigated truck farms nearby. Back home, he wrote, he'd spotted an immature golden eagle soaring over Mahantango Valley. He was waiting for the deed to the little swamp he had bought along the river—Cummings Swamp, referred to so often in "Gone for the Day." He said my wife was welcome to come along on our planned outing in May. He closed the letter in his habitual manner: "As always, Ned."

We have lost a great deal, losing Ned. But during his life he made his mark. He gave us art and writing that will be with us, always. We will be reminded of him in the nature that he loved: in the crook of a deer's leg when it starts to jump, in the queer little aspect of a hognose snake's face, in the May drumming of grouse.

**MICHAEL NYE**, Camp Hill, and his first white-tail trophy, a fine 6-point taken in Clinton County last season. Mike was 12 at the time.



**CHARLES NESS**, 75, of York, with his 10-point bagged while hunting from Rock Oak Camp in Centre County. It's his 15th buck in 51 years of hunting with that camp.





New approaches to . . .

# AQUATIC ADVENTURES

By Keith C. Schuyler

Photos from the Author

**T**HERE WAS A time within my then-limited knowledge and activity relative to the bow and arrow that our group became interested in extending our hunting to carp. This later expanded, along with our shooting horizons, to more adventuresome forays for gars, saltwater rays and sharks.

Our first tries came with junk arrows on the always plentiful blubberlipped carp found in the North Branch of the Susquehanna and in a few ponds and old canal stretches in the area. Unless the hit was a paralyzing shot, these tough fish would take off with our arrows and might or might not be recovered. The arrows were expendable, but the idea of just driving arrows into fish did not sit well.

We came up with the idea of using barbed heads and fastening a line to the arrow so that both the carp and the arrow might be recovered. Of course, a closed-face spinning reel, or a spincast reel, provided an obvious combination that would add the thrill of playing a carp which took off after being hit—the usual result, especially if it was a big one. There was no provision to attach such a reel to the recurve bows or longbows of the time, so we accomplished this by liberal wrap-ups of tire tape.

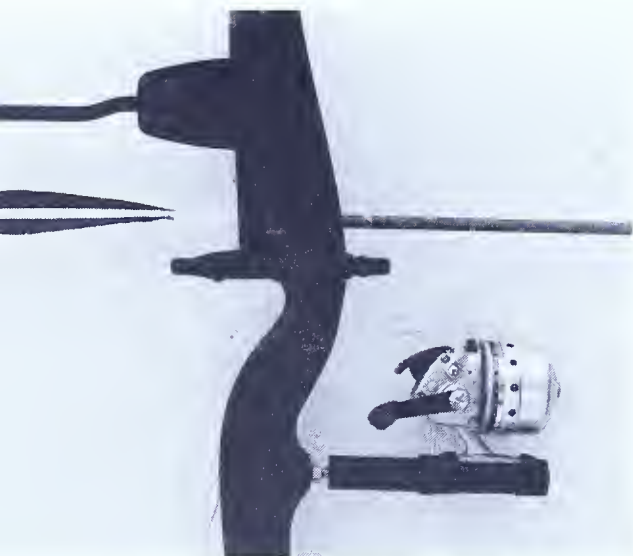
A son who carries my name went a step further and bolted a piece of broomstick to an old recurve bow. The reel was then fastened to the broomstick with a pair of hose clamps. It was an ingenious arrangement that worked fine. The only drawback for general use was the need for a spare bow, as few would be willing to drill into a



**JOHN KUBICKO** uses conventional wrap-around bow reel with shoot-through feature to nail big carp on recent fish-hunt.

favorite hunting bow to alternate between game and fish.

It didn't take long to discover that wooden arrow shafts, the most common type at that time, would usually break on a good hit when the carp exploded into action. When a miss drove the head into the rocky stream bed, the result was usually the same. Since the wet wood quickly expanded inside



**SHORT** reel seat, left, has threaded bolt which fits into stabilizer hole provided in most modern bows such as this Jennings Forked Lightning model. Any stout spinning or spincast reel will provide line storage. Tire tape rigging, below, was used to secure spinning reel to Bear recurve in early days of carp hunting.



ing the arm. Zebco has even produced a heavy-duty spincast reel specifically designed for such shooting.

From the standpoint of tackle, we have come full circle and are back to tire tape and junk arrows. Even the arrow has been modified for fish shooting, and screw-in barbed heads have been developed for the purpose. However, these paragraphs will be limited to a look at tackle for line storage—bow reels and adaptations of fishing reels.

### Paramount Consideration

Regardless of the fish-shooting setup, one consideration is paramount. The line must be free to follow the arrow. Any protrusions which interfere with free flow of the line will either cut it or foul up the shot.

In our initial experiments, we were afraid of what might happen if we forgot to set the reel on free flow or the line did get caught on some part of the bow, the reel, clothing, or even a hand. It didn't take long to discover the answer. When I forgot to open the reel on one shot, there was a loud crack as the line parted, and no other damage was done. Although it has not happened to me or anyone I know, catching the line on a hand or finger might cause a nasty cut, or worse. This is particularly true when using a heavy line and a powerful bow.

Before choosing tackle, we should consider what submarine quarry we are after. The hand-wrap, drum-type reel might continue to be the choice of those going for really big fish. Lines in excess of 100-pound test can be used on such reels. Actually, it's limited only by what the arrow and the shooting-

the slip-on head, it was next to impossible to remove it without proper tools. We had to carry plenty of spare heads.

Later, commercial bow reels came into existence and quickly became popular among archers—particularly for large carp and the other aforementioned species. These "reels," which require the archer to wrap the released line around them while a fish might be protesting on the other end, have their drawbacks. In recent years, a number of gadgets have made it possible to attach a closed face spinning reel or a spincast reel to a bow without defac-



**GILMORE CO.** provides reel seat that screws into stabilizer which, in turn, accommodates screw-in rod. Reel seat can also be used without rod. Below, Saunders bracket base, adapted to compounds, is fastened to riser, as on this custom bow, as a handy platform to affix reels for aquatic hunting.

weight of the bow can handle.

For example, when helping to subdue a 10-foot, 174-pound hammer-head shark, a special rig was utilized. A regular drum-type reel was used with 70-pound test line to which was attached a 15-foot wire leader. Further, the line, before being wound on the drum, had been tied to a line of over 100-pound test on a regular deep-sea fishing rod. After the hit, the bow was dropped and the fishing rod was grabbed to play the fish. The arrow was solid fiberglass and snapped like a toothpick as the shark rolled repeatedly until a broadhead from another archer quieted it down. A similar combination was used to hunt giant alligator gars.

For stingrays up to 90 pounds, and cow rays, the same rigging served well without the need of a wire leader.

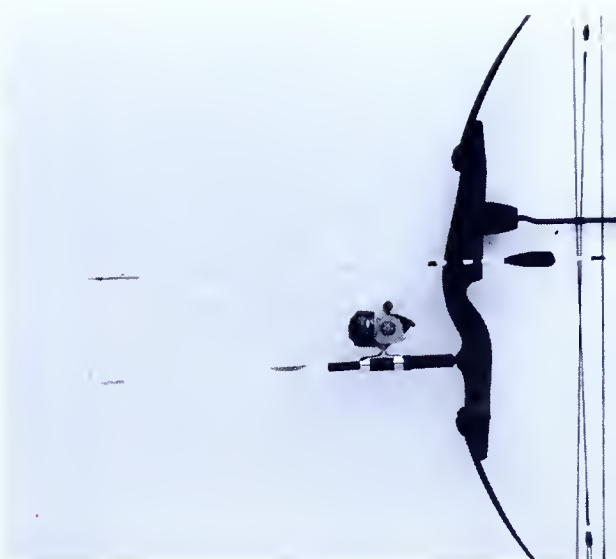
When monofilament is used as line and you are going for potentially large quarry, it is almost mandatory to use fishing-type reels. Trying to play anything really large and strong by hand-lining could result in nasty cuts.

### Variety of Approaches

A variety of approaches to submarine shooting are offered by some of the tackle shown in accompanying photos. Even the oldest methods will work well for those pursuing small game—the average carp, suckers, eels and gar found in Pennsylvania.

The simplest approach is to fasten on either a drum-type bow reel or a spinning or spincast fishing reel, and you are in business. This oversimplification actually involves a multitude of choices.

Bow reels come in many configura-



tions which dictate how they can be fastened and used. The one thing they have in common is the reel, or drum, onto which the line must again be wound when, or after, it is retrieved following a shot. Some are made to fasten to one or more holes drilled in some bows at the factory. Others must be taped fast. Still others have clips which fasten to limbs of the bow. With some, the large reel is made of rust-proofed wire and is fastened to the bow so that you actually sight and shoot through the center of the thing. Solid reels, or drums, are usually fas-

## **GAMEcooking Tips**

### **Roast Wild Turkey**

- 1 wild turkey
- 4 tablespoons butter or margarine (one-half stick)
- 1 large onion, diced
- 1 pound chorizo (Mexican sausage) or linguisa (Portuguese sausage)
- 16 oz. bread cubes or 6 cups cubed bread
- 3 eggs

Clean bird. Soak in salted water one hour. Rinse and dry thoroughly. Melt butter in large pot. Sauté onion and celery until soft, stirring frequently. Remove from heat. Grate sausage, or process with steel blade in food processor. Add to celery and onion in the pot, along with bread cubes and eggs. Mix well. Add quarter cup of hot water to moisten. If a handful of stuffing will form a ball, it is moist enough. Add more water if necessary. Carefully loosen breast skin by moving fingers slowly back and forth underneath skin until the entire breast skin is loose. (If skin splits, sew it back together.) Put filling between skin and breast, covering the entire breast. This should use all the filling as the skin stretches. This method of stuffing holds all the juices in the meat, making it moist and flavorful. Roast in 300° oven for three to four hours, or 40 minutes per pound.

*Note:* A 20 to 22 pound domestic turkey is magnificent prepared in this manner, should your hunter not come through with a wild bird.

—FROM WILD GAME COOKERY  
BY CAROL VANCE WARY

under very light tension so it will not create any appreciable resistance to the arrow when released.

There is now a considerable choice of commercial offerings to fasten a fishing reel where it can be utilized to best advantage.

For those using a compound or a cam bow, the simplest arrangement is a reel seat which screws into the usual threaded hole placed in the riser section for a stabilizer. Once this is inserted, it is a simple matter to fasten a reel to the seat provided. The Gilmore Co., Spencer, Iowa, sells such a reel seat. It has a threaded hole in the front end into which a short fighting-type rod can be inserted. Although stiffer than any conventional fishing rod, it will provide extra leverage for large quarry and avoid the risk of line cuts on the hands or fingers.

### **Clever Arrangement**

A clever arrangement to hold a spin-cast reel is a bracket made by Saunders which can be attached by extra long metal screws over the cable guard seat on compound and cam bows. In the illustration here, I fastened one to a light recurve bow made for me some years ago by Bill Wise. In this example, I drilled holes slightly undersize and used rust-proof screws to fasten the base plate to the bow. Both the bracket and reel are kept in place by knurled thumb and finger screws and are easily removed or installed as necessary.

My personal preference for general submarine shooting is the recurve bow. Because targets are usually close, it is possible to gauge how much weight you need put into the draw to avoid smashing arrows on a stony stream bed. When you go for the really big stuff, you might need all the power you can handle in whatever bow you choose to use.

tened to the bow above the sight window.

Various arrangements hold the line lightly to the reel, with just enough loose so that it will not pull free when the arrow is at rest. But it must be



# NEWS FROM THE FACTORIES

By Don Lewis

Photos by Helen Lewis

**B**ETTER CONSIDER taking that rifle for prairie dogs next summer," Ray Johns remarked as he pulled back from the spotting scope. "There are five neat holes in that white square that won't measure an inch, and that's not bad for an old man with a new rifle."

A long look gave every indication Ray could be right. Even with the number five shot striking low and to the right, the group was less than one inch. I left his "old man" remark pass; he had a few years on me. As far as the new rifle went, I wasn't too surprised. Ted Curtis at Kimber had told me over the phone that their new Model 84 Classic in 223 Remington was staying right around the inch mark on the 100-yard range.

I topped the M84 with a Bausch and Lomb 6-24X scope. Admittedly, the long scope made the classic Kimber look top heavy, but I needed the wide power scale offered by the B&L optic. It permitted me to go from the 6 to 12 power range for chucks right up to precision benchresting on the 24x marking.

I have to toss in at this point that any handloading/chuck hunter wanting a full range of powers with excellent clarity for both range testing and field use won't go wrong with the 6-24x.

The Model 84 is unique in many respects. All major components such as the barrel, bolt, receiver and trigger setup are made from moly steel. It features a head locking bolt with a Mauser type extractor, along with a spring-loaded ejector arm similar to the pre-1964 Model 70 Winchester's. This rifle was released in 1985 in the



**SHEPHERD Dual Reticle System scope is now available in 2½-7½x for hunters who prefer reasonably small scopes. Fits well on Ruger Ultra Light 308 in Ruger mounts.**

223 chambering, but six other calibers, including the 222, 6 x 47mm, 17 Remington and 221 Remington Fireball, will be available in 1986. Kimber will produce the 223 in a varmint barreled version this summer. If I understand their thinking, it won't be a super heavyweight, but a medium heavy barrel that adds slightly over one pound to the conventional Model 84's weight.

Kimber is a relatively new gun manufacturer, and is dedicated to the prin-

ciple of simple excellence from the hands of a craftsman. While Kimber has sophisticated automated machinery, its rifles reflect detail added by skilled craftsmen after the computers are quiet.

For 1986, Federal Cartridge Corporation has added a new Premium brand 300 Winchester Magnum rifle cartridge loaded with the 180-grain Nosler Partition bullet. Muzzle velocity for this big game cartridge is 2960 fps, producing an energy of 3500 foot pounds.

### H-Style Jacket

The Nosler Partition bullet uses an H-style jacket which separates the double cores of the bullet with a solid plane of gilding metal. Jacket walls taper toward the nose to provide rapid expansion of the front core at all impact ranges. The rear core remains intact at caliber diameter, using its momentum to drive the mushroom for maximum penetration.

In the shotshell line, Federal has added No. 2 shot to its 12-gauge, 3-inch, 1 $\frac{5}{8}$  oz. Premium brand load, and will offer a new 12-gauge, 2 $\frac{3}{4}$ -inch Light Magnum hunting load. Not overlooking the turkey hunter who likes the 10-gauge 3 $\frac{1}{2}$ -inch Magnum, Federal will be putting over 500 copper-plated, extra-hard No. 6 pellets in the big case. That's a 20 percent increase over the 12 gauge's 3-inch magnums.

The late Colonel Townsend Whelen once remarked, "Only accurate rifles are interesting." That has been my philosophy for many years. Gloss, glitter and steep price doesn't impress me one iota if the rifle isn't accurate. By accuracy, I'm not implying all rifles must cut the magic inch mark at 100 yards. A rifle has to be only as accurate as the job it is designed for requires. A benchrest rifle can't scatter over a  $\frac{3}{8}$ -inch area at 100 yards and stay competitive, but a hunting-weight 300 Magnum can be considered accurate if it puts all its shots in 2 inches at the same distance.

The quest for accuracy began with the advent of the shoulder rifle and is still alive today. It's far too complex to discuss in this column, but it is fair to say that today's out of the box rifle is surprisingly accurate.

Remington's Model 700 bolt action has a well-deserved reputation for accuracy. The proof of the pudding rests in the fact that the Model 700 action is preferred by many top benchrest competitors where the ultimate goal is putting all the shots in one hole. A far larger number of varmint and big game hunters use the Model 700 exclusively.

The 700's cylindrical receiver is totally machined from a single piece of chrome-moly steel. Remington believes this produces greater stiffness and rigidity, more uniform bedding and, consequently, more uniform vibration from shot to shot. From my point of view, uniformity in barrel vibrations tells a good bit of the accuracy story.

It's almost impossible to be accurate with any rifle that has a hard or sloppy trigger. Perhaps clean, crisp triggers and fast lock time don't increase accuracy by themselves, but they are necessary ingredients in helping the shooter cut a tighter group.

The value of design can be enhanced or weakened on the production line. Design of anything is of little consequence if there is indifference to production tolerances. Tight tolerances are mandatory for receiver dimensions, optimum chamber depth, barrel alignment, straightness of barrel, bore and groove diameters, and uniformity of the crown cut. All are part of Remington's secret.

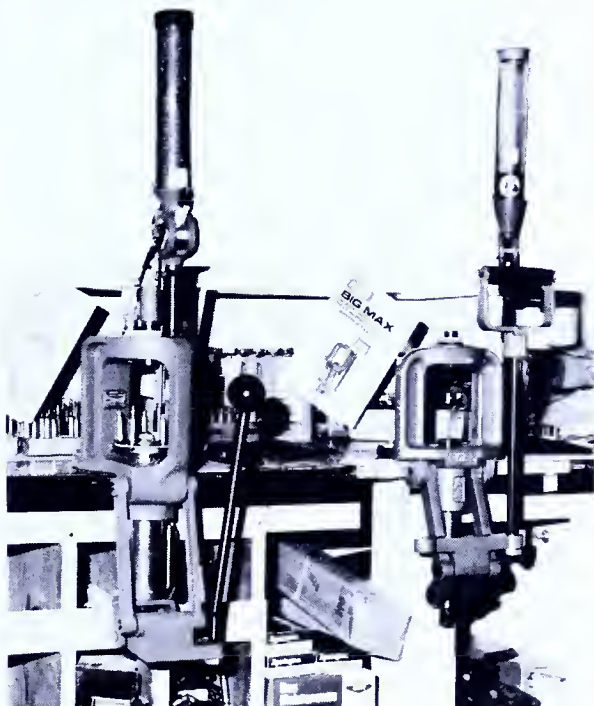
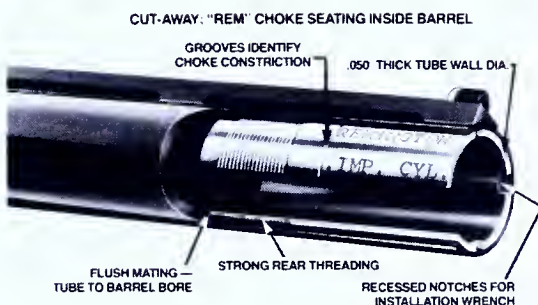
Small game handgun hunters will be happy to learn Remington will be offering the XP-100 Varmint Special chambered for the 223, and it will be called just that. The design is similar to that of the XP-100 Silhouette. It will be of medium weight with 14 $\frac{1}{2}$ -inch barrel and Remington's specially contoured, one-piece stock of Du Pont "Zytel" structural nylon.





DARRYL LEWIS working with new M84 Kimber 223. The 6-24x Bausch & Lomb makes precise aiming easy. Group, above, was the result.

REM-CHOKE offers hunters quick choice of pattern densities in numerous Remington shotguns, right. Below, their XP-100 is now offered in 223 cal. in the Varmint Special.



M700 Remington is now available in a light-weight Mountain Rifle version, in 270, 280 and 30-06. An even lighter version is made with a Kevlar stock. Far right, the Hornady Pro-7 and RCBS Big Max tools.



**SHORTLY** before his death, Len Brownell designed this QD double-lever mount. It's now available from Kimber. With 2½x Leupold Compact, makes neat rig on M7 Remington.

When the XP-100 came out in 1963, it broke new ground in handgun design. It offered commercially for the first time a bolt action handgun with the lockup strength and rigidity previously found only in centerfire rifles. The action is similar to that of the Model 700 bolt action rifle in which the cartridge is completely surrounded by three concentric rings of steel. Because of its exceptional strength, the XP-100 has been rebarreled or rechambered for a variety of standard and wildcat cartridges over the years.

The XP-100 will have no iron sights; the receiver will be drilled and tapped for scope mounts. It will be available in mid-1986.

Rem-choke is Remington's long-awaited interchangeable choke tube system. It will be standard equipment for 1986 in a wide range of Remington 12-gauge 1100, 870 and Sportsman shotguns. The hunter now will have rapid access in the field to three chokes—improved cylinder, modified and full.

Although screw-in chokes have been around for some time, Remington researched the interchangeable choke theory for a number of years, evaluating the strengths and weaknesses of

those already on the market. They wanted a design that would be outstanding in convenience, durability and performance. Objectives included speed and ease of installation, strength to handle the heaviest loads of both lead and steel, and above all else the ability to print patterns equal to that of regular barrels.

Not just any type of metal can be used. Remington selected a variety of heat treatable stainless steel that provided not only exceptional strength but excellent resistance to both fatigue and corrosion.

A good choke tube requires sufficient wall thickness in both barrel and choke insert. Use of a standard barrel, without resorting to an unsightly bulge at the muzzle, can result in extremely thin walls in either the barrel or tube. Remington designed completely new barrels specifically for the Rem-choke system. This permitted the desired dimensional strength in both elements—a choke wall thickness of .050 and a combined tube and barrel thickness of .074 inch.

To assure uniform patterns, Remington engineered a relatively long tube (over 2 inches in length) of the conical/parallel design. This is the type traditionally used in the world's finest shotguns. Such a combination of length and design permits the long taper needed for tight, full constriction, and the subsequent parallel section that produces even patterns.

### Non-Reflective Finish

Along with upgrading their 870 Wingmaster pump shotgun by incorporating their new Rem-choke system and restyling the stock, they have added a non-reflective finish on both the Model 1100 and 870 deer guns. I'll have more on these items later.

Maybe the hottest news from Remington is their Model 700 Custom KS Mountain Rifle. The new rifle combines a custom-shop Model 700 barreled action with an exceptionally strong, lightweight stock reinforced with Du Pont Kevlar. The new outfit



will be chambered for a variety of cartridges including the 270 Winchester, 280 Remington, 30-06, 7mm Remington Magnum, 300 Winchester Magnum, and the 375 H&H Magnum. To add icing to the cake, each of these chamberings will be produced in both right- and left-hand actions.

There's no question there are many advantages to a synthetic or fiberglass stock. Several features simply can't be overlooked. The first and most obvious is lighter weight. In pre-World War II days, all guns tended to be on the heavy side. With modern developments in refining steel, metal weight of both rifles and shotguns has been significantly reduced. However, highly figured stock wood is still on the heavy side. Adding a scope and mount forced the hunter to carry another pound or more. The use of a lightweight synthetic stock more or less cancels out the added weight of the optical sight setup.

### Impervious to Changes

An even more significant advantage from my point of view is that the inert stock material is completely impervious to changes in humidity and temperature. There is no shifting of the stock, which means there is no change of point of impact.

Most synthetic stocks utilize fiberglass as the reinforcing fiber. Remington claims the use of Kevlar in the Mountain Rifle adds considerably to stock strength, which is a significant factor with magnum calibers.

Believe it or not, the Model 700 Custom KS rifle will push the scales to only 6 pounds 6 ounces without sights. It has a 24-inch barrel and a blind magazine. Stock color is a neutral gray.

The new entry will be available from Remington's custom shop in mid-1986.

In a later column, I'll be covering several new rifles, including Camex-Blaser's Ultimate rifle and the Beeman-Krico silhouette 22 rimfire. The Blaser is a bolt action takedown



rifle out of West Germany that features interchangeable barrels. The Krico is a super accurate silhouette outfit capable of cutting 5-shot half-inch groups at 100 yards.

During the last year or so, several reloading tool manufacturers have come out with progressive presses. Omark Industries (RCBS) recently introduced their 4 x 4 press, and Hornady is going all out with the Pro-7.

I haven't yet done enough testing with either press to give a full run-down, but it's already apparent that either one will crank out in short order a good quantity of rifle or handgun ammo for the high-volume user.

Although I have just begun to run both presses, I can appreciate the speed and ease of loading each one offers. I must point out, though, that the progressive metallic press is complex and requires close watching by the operator. I could be too cautious, but I checked and double checked each case as it moved through the various operations. I won't say the progressive metallic press is not for the beginner, but just because it's called progressive doesn't mean it's automated. It takes time to develop a reloading rhythm and understand the complexities of the progressive press. Other than that, these two new units are exceptionally strong and durable, and they crank out perfect fodder.

Manufacturers of shooting-related equipment are going all out to improve their products. Today's shooters and handloaders have top-notch equipment available as close as the local gun store. This year will be a banner one for the hunting and shooting fraternity.

# *In the wind*

bob mitchell



A 10-point buck with a field-dressed weight of 300 pounds—an estimated live weight of 390 pounds—led the field of 777 taken in 1984 that qualified for entry in the "Biggest Bucks in Maine Club." This total was the first in the club's 36 years in which over 700 bucks weighing over 200 pounds field dressed were recorded.

In the first year of the Arkansas Game and Fish Commission's Bluebird Trail program, 97 volunteer cooperators reported 488 of their 1000 nest boxes were used by bluebirds and that 2616 young fledged. The program, which is like the Pennsylvania Game Commission's, uses information from active bluebird enthusiasts to monitor the status of bluebirds and other cavity nesters from year to year.

**The Izaak Walton League has awarded \$20,000 in grants for nine Chesapeake Bay clean-up projects. The funds, the first to be allocated from sales of the League's Chesapeake Bay Conservation Stamps and Prints, will be used for research and education programs.**

The U.S. Fish and Wildlife Service has added the piping plover to the endangered species list covering Pennsylvania and inland New York, and has classified the bird as threatened in the remainder of its range in northeastern United States. Human development of the open sandy beaches the shorebirds need for nesting, and the accompanying disturbances by people and their pets, are making many former nest sites unsuitable. No breeding pairs are now known to exist in Pennsylvania, only one has been found in interior New York, and the numbers nesting along the Atlantic coast have dropped dramatically.

After two consecutive bad winters caused nearly a 50 percent drop in Oklahoma's annual quail harvests, biologists were hoping for an upswing following the mild 1984-85 winter, especially after high quail numbers were found in early fall. An unusually wet autumn, however, took an especially heavy toll on the late summer hatches which make up a large percentage of hunter harvests. Despite the weather-caused setbacks, Oklahoma still ranks among the top quail hunting states.

**The National Wildlife Federation, citing an Environmental Protection Agency survey, reports over 6900 accidents with toxic wastes have occurred in the nation during the past five years, causing 138 deaths and 4717 injuries. Seventy-five percent of these accidents occurred at chemical production or storage sites, the remainder during transport. The greatest single cause was failure of chemical storage systems.**

An extensive deer poaching ring in Kansas and Oklahoma was broken recently, resulting in 15 federal and 32 state convictions. Many deer were killed in Kansas and then parts—sometimes only the antlers—were transported and sold in Oklahoma. So far, over \$30,000 in state and federal fines have been levied and many other charges are still pending.

Michigan's attempt to reestablish moose is being threatened by the brainworm—the same parasite long suspected of threatening Pennsylvania's elk herd. Of 29 moose released in Michigan in January 1984, at least three cows have died from brainworm and possibly three bulls (actual causes of their deaths are unknown). Six bulls and 17 cows remain, along with 20 calves born after release. Because elk in the moose release area have not suffered brainworm losses comparable to those elsewhere in the state, biologists felt moose would be equally safe. However, it's now thought that moose might be more susceptible to brainworm than elk.

**Wildlife law enforcement officers in North Carolina report an increased use of high grade varmint rifles by deer poachers, presumably because the guns are relatively quiet and extremely accurate.**





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## In Actual Terms

**H**UNTERS REPORTED taking 161,428 deer in Pennsylvania last year. That is the third largest harvest on record, and continues the string of record-level harvests sportsmen have grown accustomed to over the past 22 years. It's also only about half the story.

Each year hunting license numbers are taken from tags on nearly 30,000 deer examined by Game Commission personnel. By cross-checking these with the hunting license numbers on report cards mailed in by hunters (as required by law), reporting rates are determined. On a statewide basis, 55.7 percent of the successful buck hunters and 49.1 percent of the successful antlerless deer hunters reported their 1985 kills. Using these rates and the fact that 76,097 bucks and 85,331 antlerless deer were reported, actual harvests of 136,619 bucks and 173,790 antlerless deer are easily calculated.

Biologists have been making these calculations for years because the actual harvest figures are unquestionably better for monitoring and managing the deer herd. This year, however, the Game Commission, for the first time, is widely publicizing the calculated harvest figures. They were even highlighted in the agency's deer harvest news release distributed to the news media and sportsmen's groups across the state (see page 39). For accurately portraying what's happening in the deer woods, calculated harvests are much more accurate than just the numbers of report cards submitted by hunters.

There has been a reluctance to release these calculated figures—they have always been available upon request—because they are derived from reporting rates which are subject to an insignificant but undeniable degree of error. It's much easier to publicly substantiate the reported figures than the calculated ones. The Game Commission annually invites any person or group who so desires to come to Harrisburg and count the year's report cards. As everybody who has accepted this offer will attest, the count is irrefutable. The calculated kill, however, cannot be verified as easily, but the data used for computing the calculated kill are also available for those who will accept only tangible proof.

Over the past two years the Pennsylvania Game Commission has made great headway in explaining deer management. Publicizing this year's calculated harvest is just another step toward making more people more familiar with our deer management philosophies and procedures.

This doesn't mean the reported harvest figures are being phased out. The number of deer report cards will remain a matter of public record and, if for no other reason, will be used to compare modern deer harvests with those of years past. But it's time for us to wean ourselves from the misleading reported figure and, instead, take pride in the fact that Pennsylvania is blessed with a huge, healthy, well-managed deer herd, one, as the records show, capable of yielding sustained high annual harvests. Hunters reported taking 161,428 deer in Pennsylvania last year. Hunters actually took about 310,409 deer in Pennsylvania last year. — *Bob Mitchell*



# DEN DREAMS

By George L. Harting

**B**ECCY, our married daughter, was our expected house guest for the weekend. Her rural home in Pennsylvania's north country dictated that visits would be infrequent. It had been a year since her last stop, and that visit was a time of sharing. My wife and I had acquired a retirement home and our children and their families shared the chores of moving. When she last left the house was in disarray. Her coming now, therefore, was not without a certain excitement. The grand tour of our cottage was the first priority upon her arrival. Entering the kitchen, she found ajar the door to what had been the porch. A careful appraisal of what she saw out there prompted the excited reaction, "Daddy, you have your Room Out Back!"

My profession had dictated that our housing be provided as a part of my compensation. Consequently, at no time during those years could I enjoy the comforts of a den and an open fire. I was not to be denied those luxuries during my retirement. Now, as she looked at how that shelter had been converted into a comfortable den, her excited response indicated she knew my dreams had been realized.

Both my wife and I inherited the traits of the pack rat. With a philosophy that assumes most of what we should discard might be used again, we accumulated things for years. Despite putting much of our surplus on the market before moving, we apparently still have some stern disciplines to master. The shift from four bedrooms to two left us with a new home filled to capacity. Both of us were professionally employed and had furnished offices. In our rancher there was room for none. The Room Out Back, therefore, was designed with aesthetic and practical purposes in mind.

Courting the outdoors is a family



**THE DEN IS a room where one can relax, feet high on a Lazyboy, a place to loaf and to reflect. It is more than a shelter from the elements; it is a place by a friendly fire where one can watch the snow swirl into drifts.**

characteristic. Our children were taught to respect the natural world — to use it but leave it so it can be enjoyed by others. They were taught to hunt and fish, to live off the land, and to know the draw of a campfire at the end of the day. Ted Trueblood, who spent much of his time outdoors, affirmed: "I don't want to camp without a campfire. I've cooked hundreds of meals on kerosene and propane stoves, but I have never yet enjoyed sitting around afterward and looking at one of them." Of



**THE LADY** of the house is a teacher; I pursue freelance writing as an avocation. For success in these areas, an appropriate environment is a catalyst to achievement.

his children he wrote: "By the time the boys were ready for school, they had warmed themselves beside hundreds of campfires."

Our family shared such sentiment. The den, therefore, was to house our outdoor equipment, to be a "case" to display nature's trophies, and to offer indoors the drama of an open fire reflecting in a quiet lake. It was to be a place to reminisce and a place to stimulate anticipation for the tomorrows.

The den also was to serve as a stimulus for creative people. A desk was a must, book shelves were essential, and furniture to relax in while working or entertaining were requirements written into the design. The lady of the house is a teacher; I pursue freelance writing as an avocation. For success in these areas, an appropriate environment is a catalyst to achievement. The den needed to qualify as a work place.

The den is what its definition suggests: a shelter from the elements. But ours is more. It is a place by a friendly fire where one can watch the snow swirl into drifts, a hideout to observe a bossy jay rule the perch by the feeder, and a place where tall pines can be seen bending in the chill winds of early March. Our den is a window to the world outside.

This den is a room in which one can relax, feet high on a Lazyboy, a nook where one can snack with a buddy who drops in, and a place to shuffle the deck and challenge neighbors to pinochle. It is a place to loaf and to reflect.

### Stoves More Economical

For years, we had assumed that a fireplace would be a must in the den of our retirement home. Research, however, disclosed that the traditional fireplace is not only an inefficient heating device but also robs a house of its existing heat. Modern improvements to wood burning stoves make them more economical, and some models can double as open fireplaces when that is appropriate.

The central attraction of our den is the wood burning center. The east wall was converted to simulate a fireplace setting. The stove rests on an 8 x 10-foot flagstone base which blends well with the brick veneer laid against the adjacent walls. The brick is aesthetically appealing and the two-inch air space between the bricks and the joists insulates the wooden supports from the stove's intense heat. Because the room is small, the idea of using a hand-hewn beam as a mantel was rejected and, instead, a high recessed shelf was constructed. It is supported by the brick backdrop and is trimmed with antique barn boards. This allows an appropri-

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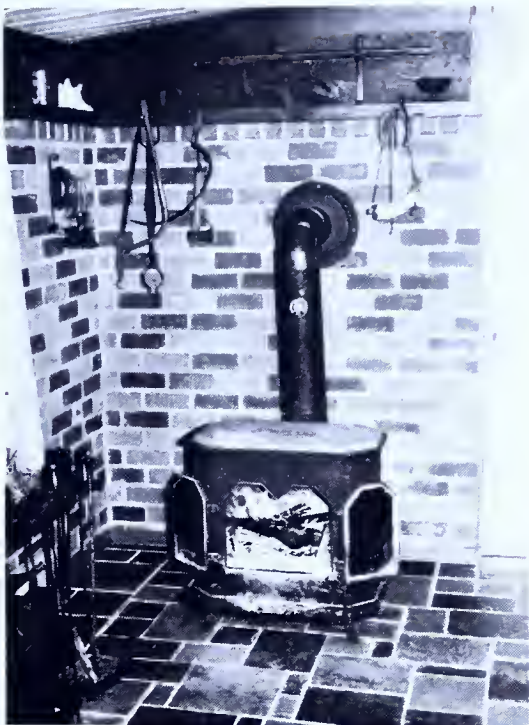
ate setting for an original Pennsylvania Rifle and powderhorn, antique tools, and brassware. One admiring guest labeled it a very attractive corner.

For the nostalgic, the den is a particular attraction. One talented outdoor writer, upon entering, exclaimed, "I like your room." The warmth of the wood stove is a delight on a brisk late fall evening. The radiation made possible through the window and door to the kitchen reaches throughout the house; supplemental heat is unnecessary until mid-November. The inviting environment is well described in the verse penned by an unknown author:

Wherever smoke wreaths heavenward curl—  
Cave of a hermit, hovel of a churl,  
Mansion or merchant, princely dome—  
Out of the dreariness,  
Into its cheeriness,  
Come we in weariness  
Home

In addition to the warmth of the open fire, the den has afforded many other benefits for each of us. The west wall houses my combination gun cabinet and trophy case, and the sills by the picture windows are just right for my lady's flowers. Shelves for reference books are available and, when the drop-leaf desk is folded, there's plenty of room for a game table. There's room for a cot when extra sleeping space is needed. On occasion my wife stokes the fire, slips into her sleeper, and makes a bed of the Lazyboy.

The most rewarding appraisal came



**FOR YEARS we had assumed that a fireplace would be a must in our den. But that is an inefficient heating device. A good wood burning stove is more efficient and economical, and some models can double as open fireplaces.**

from a native Pennsylvanian who had just returned from a four-year stay in Texas. "I like your room," he said. "It's a miniature version of the Texas ranch house where I stayed. Your tile is suitable for changing dirty shoes, the fire lends friendly comfort, there's room for your wife's flowers, and it's a great place to loaf."

My den dreams are more than realized.

**Tentative Opening Dates Set for 1987**

For the benefit of hunters who must set their vacations well in advance, the Game Commission has announced the following tentative season opening dates for hunting in Pennsylvania:

- Archery Deer ..... October 3, 1987
- Early Small Game ..... October 17, 1987
- General Small Game ..... October 31, 1987

The Antlered Deer season opening date was previously established by Commission action as the Monday following Thanksgiving, which will be November 30, 1987.

# Wildlife Habitat Management on the Farm

By Steve Miller and James C. Hyde



## Wildlife on the Farm

**E**VERY FARMER knows that all living things must live in harmony with their environment. Each living being is dependent upon other living and nonliving factors for existence. The wellbeing of wildlife is closely interwoven with soil, water and plant resources. The abundance and distribution of wildlife will be largely determined by the different land uses and management practices employed by the farmer. The basic fertility of the farmland soils and the production of food and vegetative cover are factors that influence wildlife populations on farmlands.

Rarely will you find a farm in Pennsylvania that has reserved its most fertile soils primarily for wildlife use. Fertile soils typically are reserved for crop and/or hay production and sometimes pastureland. Before determining a land use plan, a farmer should consider a number of things. The farmer will want to know how to best manage the resource base in order to sustain a high level of production over time. He must determine whether or not the available resources will support the de-

sired uses, and if the resulting income will provide an adequate standard of living for him and his family. He must also consider whether a specific land use and the associated management conditions will provide an attractive, convenient and satisfying environment in which to live and work.

A single farm can support a number of different land uses. Major land use categories typical of farms include crop and hay production, pastureland, and woodlots.

The primary land uses selected for a farm dictate the kinds and amounts of vegetation. Available vegetative species influence the types of wildlife habitat and, thus, the wildlife populations that will inhabit farmlands. Each conservation or farming practice planned for the primary use will hinder or support successful habitat management. To provide wildlife habitat as an integral component of the se-

Steve Miller is a biologist with the U.S. Soil Conservation Service; Jim Hyde is Chief of the Game Commission's Game Land Planning and Development Division.





lected primary land uses on a farm, conservation practices must be developed and carefully evaluated to determine those which will best support both objectives.

## Managing Cropland for Wildlife

When a farmer opts for cropland as a primary land use, he hopes to efficiently obtain optimum crop yields of high quality and to conserve the soil for continued productivity. Such rewards do not happen by accident but are the result of careful planning, implementation and maintenance of his conservation cropping system, and any necessary supporting treatments. Many conservation practices applied to croplands to control erosion can be beneficial in creating or maintaining wildlife habitat elements. Knowledge of compatible conservation measures that are beneficial to wildlife will reap rewards in both diversity and numbers of wildlife on the farm. The following cropland best management practices can either create or support wildlife habitat quality on the farm:

## Stripcropping and Contour Farming Systems

If all of our farm land were nearly flat, soil erosion would not be a problem. However, the rolling topography characteristic of much of Pennsylvania's cultivated cropland requires a farmer to apply conservation practices that will minimize the loss of soil and the concurrent reduction in productivity. Stripcropping and contour farming reduce soil erosion by retarding water runoff and improving water penetration into the soil.

Contour farming is farming sloping land in such a way that plowing, planting, cultivating, and harvesting follow the contours of the fields. Stripcropping involves growing crops in an alternate arrangement of strips or bands to reduce soil erosion. Contour stripcropping is stripcropping on the contour. Crops are planted so that a strip of grass, legumes, or close growing crop is alternated with a strip of clean-tilled or fallow crop. Edges created by the alternating strips attract wildlife for feeding and nesting. It is well known that the edges between different kinds of vegetation pro-



vide more suitable wildlife habitat than single types of cover.

Wildlife of various species can benefit from these practices if only a minimum number of fencerows, hedgerows, stone walls, or other obstructions in fields are removed to establish contour strips. These habitat elements serve as vital travel and cover lanes for wildlife in croplands and contribute to greater use of cultivated acreage by farm wildlife species. If existing obstructions must be removed to establish the contour strips, planting woody hedgerows can compensate for these habitat losses if they are located along the strip boundary.

Planting hay or food-bearing shrubs in field corners and where equipment use is restricted will provide additional wildlife food and cover. Areas maintained in sod provide nesting cover and enhance wildlife production, especially if mowing is delayed until July.

## Conservation Tillage Systems

Conservation tillage is a form of land preparation that retains protective amounts of residue mulch on the surface throughout the year. Conservation tillage includes such practices as no tillage, strip tillage, and other methods of noninversion tillage that leave at least 30 percent of the soil surface covered after planting. When performed annually with crop residue management practices, this practice can significantly reduce both nutrient and soil losses from the farm.

Conservation tillage generally has a positive impact on wildlife. Using crop residues to protect cultivated fields during critical erosion periods also provides food and cover for wildlife. Waste grains left on the surface with crop residues provide extensive feeding areas for wildlife during migration periods and over the winter months. Residues of crop leaves and stalks also furnish cover for animals feeding in the field. Many species of ground nesting birds utilize crop residues on no-till fields as nesting sites.

Researchers in Iowa found a substantially greater diversity and density of birds nesting in no-till row crop fields than in conventionally tilled fields, and nest success was comparable to idle areas such as fencerows. Birds found nesting in no-till



fields include meadowlarks, killdeer, vesper sparrows, grasshopper sparrows, and pheasants. These birds help keep insect pest population in check and make pest control less of a problem for the farmer.

Conservation tillage has grown in popularity across Pennsylvania in recent years. These practices have gained the support of Commonwealth farmers as a means to reduce soil losses, to lower crop production costs, and to enhance wildlife populations.

Careful planning is essential to ensure proper crop management coupled with desired wildlife benefits. For example, a farmer who is interested in providing habitat for pheasants should be encouraged to employ fall-seeded no-till operations in his small grain fields rather than spring-seeded alternatives. It is also quite possible to meet the 30 percent cover requirement for soil conservation yet contribute little food or cover to wildlife. Such practices as chopping or shredding cornstalks after harvest, though ensuring protection of the soil, significantly reduce the value of the residue to wildlife. Undisturbed harvested crop fields receive the greatest use by wintering wildlife.

Most concerns about conservation tillage center on increased use of pesticides and its possibly harmful side effects on wildlife populations. With reduction or elimination of tillage, many farmers have increased their use of herbicides to control weeds in the crop and insecticides because certain insect pests can be harbored in the crop residues. Most of the insecticides and herbicides in use today are short-lived chemicals that persist in the environment for hours or days. Currently used chemicals have been implicated as the cause for decline in wildlife populations; however, there is considerable debate as to how acute and widespread the effect may be. Herbicides can impact the wildlife food base on a farm, but have little direct toxic effects on animals. Insecticides, however, can kill wildlife through direct toxic effects or after eating poisoned invertebrates.

Although we need to learn more about the harmful side effects of more intensive pesticide use, we can say this about the effects of minimum tillage on wildlife: (1) if weeds are controlled by herbicides, there is minimal physical disturbance to wildlife nesting in residue after planting time, but there is a pesticide toxicity risk; and (2) if

weeds are controlled by cultivation, there is substantial chance of physical disturbance to residue-nesting wildlife.

## Waterway Systems

As excess surface storm water runs across fields, it tends to become concentrated and can form gullies. To prevent gullying and convey surface runoff water safely and at nonerosive speeds into watercourses or impoundments, a grassed waterway may be used. This practice involves a shaped outlet planted in sod cover of perennial grasses or legumes, or both. By selecting adapted grasses and legumes that benefit wildlife, you can control erosion and provide wildlife food and cover on the waterway.

Maintenance programs must be established on grassed waterways or outlets to maintain capacity of the structure, vegetative cover, and the outlet. Cool season grasses are usually seeded on waterways. These grasses are subsequently hayed by farmers during the nesting season of many birds. This can result in widespread nest destruction and the death or injury of incubating adults unless mowing is delayed until July.

Quality forage producing warm season grasses can be used on waterways. Warm season grasses begin growth later in the spring than do cool season grasses, and they maintain growth during the summer when cool season grasses are semi-dormant. As a result, optimal haying time is about one month later than with cool season grasses. This later haying date permits much nest completion. Warm season grasses also provide structurally superior wildlife habitat.

## Diversion and Terrace Systems

Intensive row cropping without small grains or meadow in the rotation increases soil erosion and adversely affects many forms of wildlife. When fewer acres of forage crops, small grains, and idle areas are maintained, wildlife species that benefit from mosaics of habitat in agricultural ecosystems must range farther for their life needs. The survival rate of pheasant chicks to 5 or 6 weeks of age is significantly tied to the size of the area ranged by



**MANY CONSERVATION practices applied to croplands to control erosion can also be beneficial in creating or maintaining wildlife habitat elements.**

broods. The manner in which vegetative cover is managed on diversions and terraces can influence the size of the home range needed by such species for basic food and cover needs.

A diversion is a graded channel with a supporting ridge on the lower side; it is constructed across the slope of a field to intercept surface water runoff and carry it slowly to surface or underground outlets. The area occupied by the diversion is established in grasses and constructed with generally sloping sides so it can be easily maintained. Food and cover benefits for wildlife can be gained if grasses and legumes of value to wildlife are selected and planted in the diversion system. The value of a grass diversion as a travel lane for wildlife and as nesting cover for ground-nesting species can be realized only if mowing of diversion vegetation is limited to once annually, preferably after July 1. Limiting the use of a diversion for farm machinery access will also provide further protection for nesting birds, small broods, and other susceptible wildlife occupying

these habitats. Permanent food and cover can be provided in some areas of a diversion system, particularly any surface outlets, by planting and maintaining them in woody vegetation.

A terrace is an earth embankment, or a ridge and channel, constructed across a slope of a field to intercept surface runoff water. A terrace reduces erosion on sloping cropland by shortening the slope and intercepting water runoff. Terraces may be constructed level or on a gradient. Terrace outlets may be the soil itself, a grass waterway for surface flow, or an underground tile outlet for subsurface flow.

Terraces can be broad based where the slopes are cropped or narrow based where slopes are not cropped but are planted to permanent vegetation.

The value of terrace systems to wildlife can be influenced by the type of vegetation planted on narrow-based terrace slopes and corresponding surface flow outlets; by delaying mowing of such slopes until mid-summer; and by establishing shrubs at the outlets of tile drains to control scouring and provide cover.

## Managing Pastureland and Hayland for Wildlife

As with croplands, when a farmer chooses his primary land use as either pasture or hay, his goals are to cost effectively establish and maintain these lands to furnish a high quality forage yield and to provide adequate soil protection. Several of the supporting treatments discussed above for croplands are also applicable to pastures and hayland. In addition, pastureland and hayland can support the needs of the farmer for both his livestock and wildlife if he carefully plans vegetative types and uses.

The use and management of tall growing, warm season grasses for supplementing midsummer forage and increasing production on soils which are limited in their ability to grow conventionally used, cool season grasses is gaining momentum among farmers in Pennsylvania. Most grasses found in Pennsylvania pastures grow rapidly in the spring, early summer and fall. Because of their growth characteristics, they become dormant during the hot/dry season, creating a slump in forage and quality and quantity. Warm season grasses such as switchgrass,



caucasion bluestem, big bluestem, and indiangrass grow primarily in the warm part of the summer and thrive in hot summer temperatures. By using a combination of perennial cool and warm season grasses, farmers can rotate cattle on nutritious forage throughout the growing season.

Wildlife research has shown that pheasants prefer the tall, densely stemmed stands of switchgrass over cool season grasses for nesting. The clumpy growth form also makes these grasses attractive nesting and cover sites for other wildlife species. Seasonal rotations of grazing or hay production allow wildlife to maximize protective use of warm season grasses for nesting and cover.

Further, the later haying date for warm season grasses fits better into farmers' schedules, as early summer is typically less busy than mid or late spring. The improved scheduling of warm season grass haying permits cutting at a time when forage quality is highest.

## Managing Woodland for Wildlife

Many Pennsylvania farms contain woodland areas that provide a farmer with wood products to sell or use, areas in which he can pursue recreational interests, and many other benefits. Whatever his objectives, the farmer is interested in maintaining the quality of this forest resource base. He may be interested in ensuring that the available tree cover is made up of desired species for planned wood crop production; that adequate cover for watershed protection is maintained; or the erosion within the woodland is controlled within an acceptable limit.

Woodlands on farm lands also provide unique habitats and management opportunities for wildlife. One of the most popular woodland management practices in Pennsylvania is the establishment of field borders. By definition, field borders are strips of perennial vegetation established at the edge of a field by either planting or conversion from trees to herbaceous vegetation and shrubs. From a wildlife perspective, this conservation practice is one of the most effective ways of increasing the potential for both diversity and numbers of species in an area.

A well designed and maintained field border should provide a series of succes-

sively higher layers of vegetation in the transition zone between the field and the forest stand. The greater the number of distinct layers of vegetation represented in a field border, the more suitable an area is for supporting more diverse wildlife populations.

The procedure recommended for establishing a cut-back field border along a wood's edge is as follows:

1. Stand along the line of demarcation (the "hard" edge) between the field and forest cover types, facing the forest sector.
2. Examine the height and positioning of each shrub or tree within your field of view. Determine whether or not any part of these plants, if cut and felled perpendicular to your line of demarcation, would cross this boundary.
3. If any part of a shrub or tree so examined would cross the line when cut, that particular plant should be felled. If the plant does not cross the line, leave it standing.

This relatively easy procedure results in a field border composed of successively higher forms of vegetative cover progressing from the field edge toward the dominant forest canopy height of the residual stand. This technique works best along edges having full exposure to direct sunlight, but effective results have been achieved along shaded edges as well.

Slash (tops and stems) resulting from the cutting operation should be used to construct long brushpile windows parallel to the woodland edge; these provide immediate cover for wildlife until the desired living cover develops.

In time, the field border will require maintenance to continue providing optimum food and cover conditions for wildlife. The recutting interval depends upon the kinds of trees and shrubs in the border and other variables affecting their regrowth. When maintenance cutting is warranted, during the recutting operation, simply apply the same procedure as outlined above. Properly established field borders provide numerous benefits other than food and cover for wildlife. Such woodland border cuttings provide many useful byproducts to a landowner such as lumber, posts, and fuel wood. Removing tree growth along field edges also permits more efficient and profitable farming of these margins and eliminates the burden of removing dead trees and branches that are toppled into crop fields by strong winds.

## Pennsylvania Game COOKBOOK



Pennsylvania Game Cookbook is a 98-page collection of delicious recipes submitted by GMAW & LWS readers. It includes methods of preparing all kinds of game available in Pennsylvania plus some recipes for insects, elk, and other species. \$4.00 delivered from GMAW & LWS office.

## Stream Protection Systems

Streambanks and adjacent riparian lands provide basic habitat requirements of water, food, cover, and nesting sites for many fish and wildlife species. Generally speaking, riparian habitats add habitat diversity and are capable of supporting large numbers of fish and wildlife populations.

Streambanks should be planted in appropriate vegetative cover. Vegetative cover helps regulate stream temperatures, provides food and cover for fish and wildlife, helps stabilize streambanks, and buffers the stream from the effects of erosion. Provision of streamside vegetation greatly enhances habitat for muskrats and other furbearers which have traditionally been a source of income for farm youths.

Populations of these animals can be significantly increased by implementing streambank protection measures.

To protect the streams, enhance water quality and restore habitat along streams, it is essential that livestock be prevented from entering stream channels at will. Livestock trampling of streambanks accelerates bank erosion, eventually widening the stream channel beyond what it normally would be. As the channel widens, water velocities decrease, allowing silt particles to settle out. This destroys fish spawning habitat. Silt also smothers and eliminates habitat for aquatic invertebrates, a major food item for fish. As the stream widens and riparian vegetation is eliminated, more of the stream is exposed to the sun, resulting in increased water temperatures. Higher temperatures in summer render the stream unsuitable for species such as trout. In addition, allowing livestock to freely "loaf" in the stream channel contributes to nutrient and bacteria loading problems in downstream water supplies. Combined with nutrient runoffs from cultivated lands, the resulting degraded water quality not only has localized impacts but also adversely affects ecosystems such as Chesapeake Bay, a considerable distance downstream. Fencing an area at least 10 feet back from the top of the bank will provide a vegetative strip along the stream and prevent livestock access to the stream except at designated watering and crossover locations. Crossings should be constructed to reduce potential impacts by using techniques such as rock-lined crossings. Spring development as an alternate watering source should not be overlooked.

In-stream practices such as deflectors, Jack Dams, boulder placement, and riprap of banks at critical areas will also provide fish habitat.

## "Donus" Farmland Habitats for Wildlife

Most of the so-called odd areas on a farm, such as field corners, ditch banks, farm ponds, hedgerows, fence lines, and rights-of-way for power lines and gas lines, offer special habitat management opportunities. These areas can provide food and cover for wildlife almost year round, so long as vegetative components are not markedly disturbed by intensive farming.



## Farm Ponds

During the past 50 years, farmers and rural landowners built thousands of small ponds to aid in water management and to provide a water supply that would not normally be available on the farm. Water for livestock, spraying, irrigation, and fire protection are traditional agricultural uses; however, recreational uses, esthetics, and fish and wildlife values are also prime goals of many pond owners.

Farm ponds can meet certain water needs, provide sport fishing, and contribute wildlife habitat in the vicinity of the pond. These benefits require suitable sites and commitment to maintain and manage the pond and adjacent land according to the owner's planned purposes.

Properly constructed and well managed farm ponds provide habitat for fish and associated aquatic organisms. Most ponds are stocked with fish, but the fact that a few fish are put in a pond does not mean that a desirable fish population will result. To develop satisfactory sport fishing, it is essential to stock the proper kinds and numbers of fish, manage them so they reproduce and grow, then harvest them in adequate numbers to avoid overcrowding.

Land adjacent to the pond site provides opportunities to enhance and develop habitat for upland wildlife species. Fruit producing wildlife shrubs and conifers may be interplanted to add wildlife habitat as well as to landscape the pond site. Pond edges should be kept free of woody plants that would prevent access and maintenance. Trees should not be planted on the dam as roots weaken the impoundment.

## Farmstead Shelterbelts or Windbreaks

Farmstead shelterbelts and windbreaks are man-made habitats created by the planting of rows of trees or shrubs on the windward sides (usually north and west) of farm homes and adjacent buildings. Shelterbelts in intensively farmed areas provide valuable escape cover, breeding habitat, and foraging sites for a variety of game and nongame birds and mammals. These wooded habitats, when properly established and maintained, can provide protection against wind and drifting snow, reduce energy and feed costs to the farmer, and add beauty to the farm.

Shelterbelts should be at least 1/5 acre in size, as a large shelterbelt is more value to wildlife than a smaller one. The shelterbelt should consist of 8 to 10 rows of planting to achieve the best wind protection and resultant reduction in total energy costs. Certain species of trees and shrubs not only afford wind protection but also are valuable wildlife plantings and are appealing from an esthetic perspective. Shrubs, such as honeysuckle and verburnum, should be planted in the first rows (windward side). Slightly taller plantings, such as flowering crabapple, plum, and chokecherry, should go in row 2. A mixture of larger trees such as maples and poplars are good choices for rows 3 to 5. In particular, faster growing trees should be planted in rows 4 and 5 to give the necessary aerodynamic profile to increase wind protection. Rows 6 to 8 should contain spruce and pine species.

Request advice from your Conservation District Office before establishing a shelterbelt to ensure that the tree and shrub species selected for planting are suited to your region, soil and climatic conditions,

**SWITCHGRASS, bluestem and Indiangrass thrive in summer temperatures. Research has shown that pheasants prefer the tall, densely stemmed stands of switchgrass over cool season grasses for nesting.**



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and for recommendations for plant spacing between and within rows. By allowing the proper spacing between individual plants and rows, herbaceous growth will be encouraged between rows, thereby adding vegetative diversity to the shelterbelt for the benefit of wildlife. Plantings that are too closely spaced can create snow drifting problems and could have a negative effect on wildlife in winter by reducing their ability to find food or cover. Livestock grazing in shelterbelts should be discouraged because of the impact of grazing on vegetation, and, hence, on the value of the shelterbelt as a wind barrier and a wildlife habitat. Snags (dead or dying trees) should be retained in shelterbelts as they are important foraging and roosting sites for a variety of wildlife.

### Rights-of-Way

Rights-of-way through farm lands may be largely associated with crops, pasture, and grassy areas. Habitats for wildlife may be enhanced by introducing a shrub community in these areas. For rights-of-way in Eastern states, a general recommendation is to encourage about 2/3 of the corridor in legume and grass and about 1/3 in mixed shrub communities. Small (50 square foot) clumps of shrubs spaced at

50- to 100-foot intervals along the corridor will provide shelter for a variety of wildlife and even nesting cover for certain species of songbirds.

### For More Information

For further information and help on how to improve wildlife habitat on the farm while you conserve soil and water resources, contact one or more of the following offices:

#### *Wildlife Habitat Planning Assistance*

Contact: County Conservation District  
USDA Soil Conservation  
Service

#### *Cooperative Farm-Game and Safety Zone Project*

Contact: Pennsylvania Game  
Commission

#### *Woodlot Management Assistance*

Contact: DER Bureau of Forestry

#### *Stream Improvement Planning Assistance*

Contact: Pennsylvania Fish  
Commission

#### *Conservation Practice Cost-Share Programs*

Contact: USDA Agricultural  
Stabilization and  
Conservation Service

#### *Pond Construction and Management Assistance*


Contact: USDA Soil Conservation  
Service  
County Conservation District  
Pennsylvania Fish  
Commission

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## Boone and Crockett Awards Program

The Boone and Crockett Club is accepting trophy entries for their 20th Big Game Awards program now through December 31, 1988. Several years ago the Club began accepting entries over 3-year periods, and publishing the results in special volumes, each devoted to a particular period. These are not to be confused with *Records of North American Big Game*, a ranking of the all-time records which is updated about every six years. The lower minimum entry scores initiated during the 19th scoring session still apply. Also eligible during this period are all hunter-taken trophies that meet these reduced standards and have not been published in a previous B&C book. After this 20th session, only hunter-killed trophies taken within four years of the closing date of an entry period will be accepted. For more information write: Boone and Crockett Club, 205 South Patrick St., Alexandria, VA 22314. Include a SASE.





**DARK MISTY SUMMITS** rose on either side of us, and between them, in a great black bowl lined with trees, was the lake.

# *A Flame in the Twilight*

**By Ken Wolgemuth**

**I**N RECENT years I've spent a good deal of time out of doors. I tend to seek out the lonely places—those dim, haunting spots where fungus glistens on rotten logs and toads bellow in reedy pools at night. I carry binoculars and cloak my wanderings in the guise of science, but in truth I am out to recapture a vision, to rekindle a magic that touched me once, long ago, on a misty Pennsylvania mountaintop.

Turning points are seldom recognized when they occur. Days destined to be remembered after the lapse of years often begin in an ordinary fashion. Thus, it was with no particular sense of expectation that my friend Steve Shope and I stepped from a cabin porch one cloudy August morning a decade ago, and set off up a dark slope in Sullivan County.

At the top of that slope—in a saddle between two forested knobs—there was, according to Steve, a lake. He was vague and hesitant in his descriptions,

saying only that it was a special place, and that I would have to see it for myself. Steve had been there with his father once, several years earlier, and felt drawn back by an attraction he couldn't name.

At first we followed a narrow mountain road, still damp from the rain of the previous night. The day was sticky, but cool. A dull gray sky shut out the sun, and the air was thick with the loamy scent of wet ground and weeds.

We turned from the pavement before long, cut through a clearing, and followed a winding path into the darkness of the hemlock woods. All was quiet and still under the deep green pine-scented trees. Although it was the height of summer we were reminded of Christmas. Wet needles covered the ground and cushioned our steps as we wound our way higher, past old stumps and lichen-covered rocks. The only sign of animal life was the muted lisp of a small bird in the branches.

What kind of bird it was, I couldn't have said. I moved, in those days, at the center of a small and uncomplicated world. The nature I knew consisted of a handful of the larger mammals, four or five common birds, a few biting or stinging insects, a couple of snakes, and poison ivy. The rest was just scenery. I went walking in the woods because I found there a certain freedom and sense of adventure—and, to a lesser extent, because that was the sort of activity a boy was supposed to engage in.

### Son of a Hunter

I was the son of a hunter, and the grandson of a hunter, and had been taken into the woods early in my life. I had spent time at the family cabin during those November days when my father and uncles gathered to celebrate the annual ritual of buck season.

I had listened from the bedroom as their mystic rites proceeded far into the night. I looked forward to being initiated into this secret society, longed to share in the poker playing, the cigar smoking and the tale telling that were, in my mind, the time-honored pursuits

of men in the woods. Nature was, to me, merely the stage upon which this high drama was enacted. That it might have some value of its own—that perhaps these men came more for the misty mornings than for the smoky nights—never occurred to me.

Steve and I trod the forest path until, after fifteen minutes or so, as the light grew gradually brighter, we emerged into a great open meadow on the flank of the mountain. Acres and acres in extent, it was a sea of lighter green within the dark embracing arms of the forest. Deserted and still, it spoke to our imaginations of vast unpopulated lands. We moved, under the dark and misty brow of the mountain, like the first explorers on a new continent, or the last two men left alive in the world. We came upon and followed a tiny rill. No more than a foot wide, it reflected the flowers and damp grasses that bent near its surface, and kept us company across the desolate meadow to the edge of the woods beyond.

Here the terrain steepened abruptly, and we had to struggle for every inch of ground gained. We slipped on wet leaves, teetered on mossy rocks, and grabbed wildly at branches that often as not broke off in our hands, leaving us hopelessly out of balance and sending us sprawling to the soggy ground. We stopped often to rest and to assess our injuries, and it was an hour or more before the slope rounded off beneath our feet and we found ourselves at the summit, standing belly-deep in a sea of ferns.

The ferns stretched out as far as we could see into the gloom. Dew-spangled and strangely, vibrantly, green beneath the pines, they trembled with a light of their own. There was a kind of enchantment about the place. When a doe leaped up at our feet, we followed her automatically. Before long we saw the light of a clearing ahead. Parting the last few entangled branches, we stepped out under the overcast sky, and I heard Steve whisper, "We made it."

Dark misty summits rose on either side of us, and between them, in a



#### Question

Do farmers or landowners need a federal duck stamp to hunt migratory waterfowl?

#### Answer

Yes. Under federal regulation, all persons who have reached their 16th birthday need to purchase a Migratory Bird Hunting and Conservation Stamp, commonly known as a "duck stamp".



great black bowl lined with trees, was the lake. Shallow and silty, 50 yards across, it lay beneath the pewter sky like the stagnating dregs in some colossal cauldron. It was still and sterile, an evil shade of chalky blue. It was a lake of death and it was filled with skeletons—the pale disjointed bones of drowned trees.

Twigs and smaller branches had weathered away over the years, leaving only trunks and the stubs of larger limbs, all scoured by wind and rain until they gleamed a ghastly white. Some stood straight and tall; others leaned crazily, like the masts of sunken galleons; still others had fallen, leaving their limbs projecting weirdly from the unearthly blue water.

Huge stumps, bleached and polished like the rest, guarded the water's edge, and the smell of decay and summer mud rose all around. A small snake writhed off through the weeds as Steve and I edged our way further into the clearing. The only sound was the soft crunch of our footsteps on the sandy shore.

The prospect was bleak, desolate and—at the same time—inexplicably compelling. I felt something of the power that had drawn Steve back for a second look.

### Temple-Like Stillness

We moved through a temple-like stillness, and explored as one would explore an ancient ruin, reverently running our hands over the time-polished stumps as if they were priceless relics. At one end of the lake we came upon a rough pile of sticks through which the water trickled slowly. Kneeling for a closer look, we realized that living creatures had once taken this high and lonely spot for their own, and had here carved out a kingdom. The sticks had been gnawed to a point at each end—the work of beavers.

We found the remains of the lodge in the shallows along the shoreline. A disintegrating mound of branches, it held for us the fascination of a deserted house on a lonely street. It conjured up



**STEVE AND I decided to eat our lunch and then head back down the slope. We had hot-dogs and rolls in our packs, so we kindled a small fire on the sandy shore and roasted them on forked sticks.**

the same images of ghosts and alien powers moving in the shadows. We listened closely for the slap of spectral tails on the dead blue waters.

We lingered long around the dam and the lodge. We picked up the muddy sticks, scrutinized the old toothmarks and wondered about the long gone makers of this lake. The clouds thickened, darkened, and pressed even closer to the trees. The light took on the character of dusk, and the skeletal trunks in the water loomed against the sky like monuments in some nightmare graveyard.

Standing there in the haunted stillness, taking in the muddy scent of the lake and the rotting weeds, I gradually became aware of the forest and the dark summits around me. I sensed something of their vastness, their mystery, their undeniable brooding presence. The boundaries of my snug little world drew back just a bit, and the prospect revealed was disquieting.

Rain seemed imminent, so Steve and I decided to eat our lunch and then



head back down the slope. We had hot-dogs and rolls in our packs, so we kindled a small fire on the sandy shore and roasted them on forked sticks. Reflected on the still waters and flickering against the dark woods beyond, the image of that tiny orange flame is still vivid in my memory. It seemed so feeble, so futile, and at the same time so achingly lovely, in the midst of that haunted vale.

We sat on the sand to eat, saying little, keeping close to the fire. I watched the sparks fly upward, only to wink out against the clouds. I toyed with a bit of gnawed wood, running my fingers over its pointed ends. Together, the sparks and the stick seemed to hold some vague significance, and I tried, with no great success, to divine their meaning.

As I pondered, two tiny brown ducks appeared from nowhere, flying in tandem just above the trees. Their flight sent a strange and involuntary thrill through me. They seemed out of place there, where nothing moved. In that desolate spot they seemed to embody life and freedom of an intensity no human could ever hope to experience. I watched the ducks and the sparks; I felt the piece of wood in my hand; and suddenly the picture came into focus.

I saw in my mind's eye this mountain, years ago, with its woods and its tiny stream. I saw the beavers come and settle. I saw saplings fall, a dam being built, the waters slowly rising. I saw the trees drown; saw their branches falling away into the water, their trunks being polished to a gleam-

ing skeletal whiteness. I saw the summer sun and the winter snow, one replacing the other, over and over again. I saw the beavers living, reproducing and dying, and eventually moving on, leaving their haunted ruins behind.

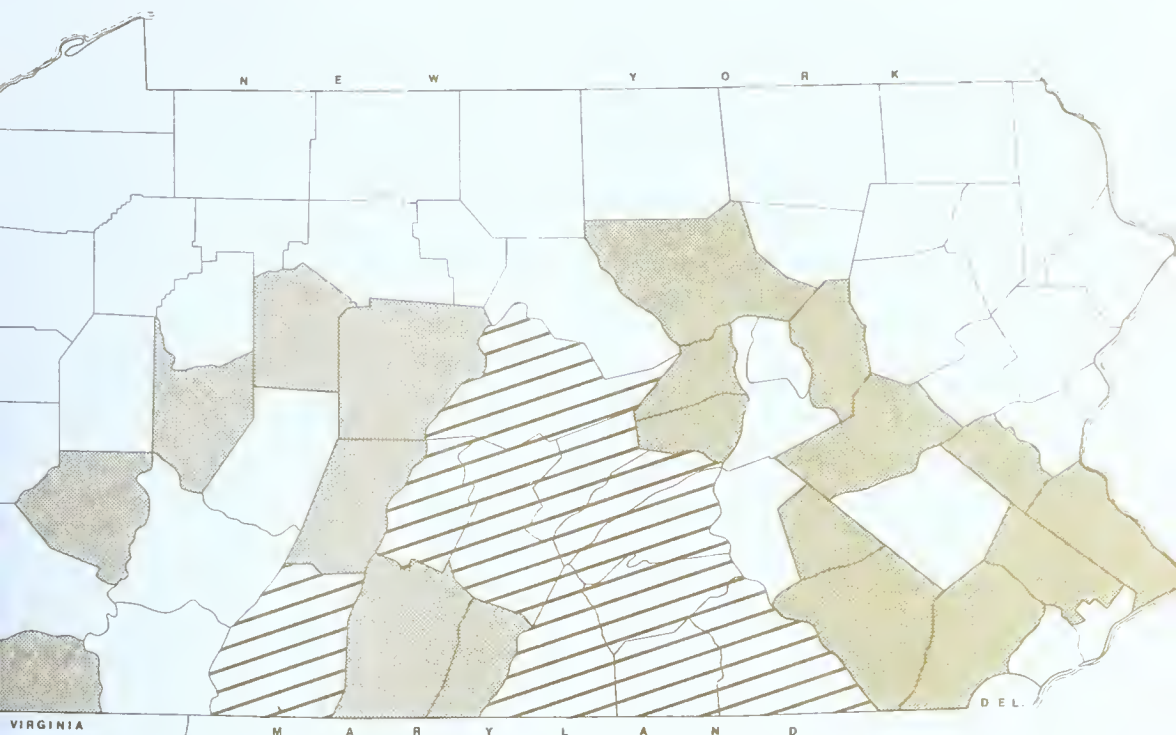
The vision was staggering for I had, until that moment, labored under the assumption that I *mattered*. But the simple truth, the truth that had been trying to batter its way into my teenage skull, was that all of this had somehow been accomplished without me, without anybody. For the first time I saw the natural world for what it is—no mere backdrop for man's activities, but a force unto itself—vital, powerful and inscrutable, ancient beyond reckoning and lovely beyond words. And I, for all my swagger, was but a mote, an animated speck, a small fire kindled in the midst of this twilight grandeur—weak and ephemeral, but burning bravely nonetheless, unaccountably privileged simply to be here, humble witness to it all.

Silently the ducks circled the lake—not even their wingbeats could be heard. Once, twice, three times they flew by over the dark dead waters, and then turned and were gone over the ridge.

Steve tapped me on the shoulder and said we had better be going. A few drops of rain were beginning to dimple the lake's surface. We doused the fire, packed our gear, and set off down the mountainside.

At the upper edge of the meadow we stopped and looked out over the once familiar landscape of northern Pennsylvania—the dark ridges, the valleys with their streams. It seemed strange and new to me, a land of marvels and mysteries, with wonder enough for a lifetime in every thicket and grove. I didn't say anything about this to Steve. I could not, at that point, have articulated my thoughts. I knew only that a subtle change had been effected in me; that for one evanescent moment my vision had encompassed the world, and that nothing could ever be quite the same again.





**RABID ANIMALS HAVE** been encountered in the counties indicated above—most in the southcentral area marked with bars, fewer in the gray areas. See Table 1, page 21, for more complete information.

# Rabies Update

By Larry M. Iampietro

**R**ABIES is still a growing problem in Pennsylvania. The nearby state map shows the location of animals diagnosed as positive for rabies by the four laboratories in the state that test for it. Table 1 gives a more detailed breakdown. This does not mean that only 450 animals in the state had rabies last year. A far greater number die of this disease without the awareness of man. This doesn't mean that a large percentage of animals in the state are rabid, either. About all that can be deduced from this information is that the rabies virus is found in the areas of the state shown, and that when compared to maps of past years its obvious that more rabid animals are being found in more areas of the state than ever before.

For this reason, everyone should take

a few simple precautions. First, do not handle live wild animals, especially bats, foxes, raccoons, or skunks. If for some reason one must be handled, wear protection (gloves, etc.).

Springtime is one of our busiest seasons in the rabies laboratory, because people cannot resist picking up wildlife babies (especially raccoons) and "rescuing" them. (About 99 percent of the time, rescuing is not necessary because the mother is not far away.) The young animals are taken home and a bite occurs (which is natural for baby animals). The rabies articles the persons have read are then remembered, and now the rescuers want to know if the animals have rabies. That's when they find out the litter must be killed for testing. Why? Because the brain tissue must be examined. The rabies virus is

found in the brain tissue and it enters the salivary glands from the brain. The brain tissue is placed on a slide with rabies antibodies attached to a fluorescent dye. If the brain tissue contains the rabies virus, the fluorescent dye will attach to it and this virus-antibody-dye complex will appear as a bright green color under the light of a special microscope.

If the animal is not tested, rabies treatment should be administered to all persons bitten, scratched, or in contact with saliva which could have entered the eye or mucous membranes. If neither testing nor treatment is done, it is like playing Russian roulette with the ratio of cartridges to empty chambers getting greater the closer to southcentral Pennsylvania the animal is located. In Adams or Cumberland county, it would be like playing the game with an automatic.

The second precaution is to have your cats and dogs vaccinated against rabies. With some vaccines, one shot is good for three years. Some enlightened communities are running rabies clinics for nominal fees. Vaccines are available for horses and cattle. There is no vaccine for raccoons or skunks (which should *never* be kept as pets), and to use cat or dog vaccine in them could actually cause rabies. There have been cases where raccoons and skunks carried the virus for long periods of time before showing signs of the disease.

### Third Precaution

The third precaution is to stay away from stray cats and dogs. If you are bitten, the only way to be sure the animal doesn't have rabies is by testing. This means the animal must be killed or it must undergo a lengthy quarantine period. Report all strays to the proper authorities.

Let's suppose you take all these precautions but you are bitten by a wild or domestic animal. Capture or kill the suspect animal without damaging its brain. Immediately clean the wound with soap and water and then apply a germicide or antiseptic such as alcohol.

If the animal was killed, place it in a plastic bag and put it on ice or in the refrigerator (do not freeze). If it was a wild animal, contact your district game protector for further instructions. If it was a domestic animal, contact a veterinarian. He will either process the animal if it was killed or keep it under observation.

It is always better to submit specimens to a laboratory through a veterinarian, game protector, physician, animal control officer, city or county humane society or health department, or one of the eight regional offices of the Department of Agriculture. Results will be reported by the laboratory to them only, and they will contact you. If an incident occurs after hours or on a weekend or holiday and you can't locate any of the above, the Health Department's emergency telephone number is 717-737-5349. Specimens meeting the proper criteria are accepted at some locations 24 hours a day, seven days a week. Results are usually given within 24 hours of submission. There is no charge for this testing. However, be sure you have a valid reason for having an animal tested (a bite or scratch or contact with saliva of a suspect animal), or it may be rejected.

Treatment for rabies is expensive—\$500 to \$1200. That is one reason for testing instead of just administering vaccine to everyone bitten or scratched by a suspect animal. But what if you couldn't capture the animal, so it cannot be tested? All facts (location, type of animal, behavior of animal, etc.) must be weighed to decide whether treatment is warranted. The decision for treatment is not as formidable as it once was. The 21 abdominal shot series with its many side effects is no longer necessary. The new treatment is five shots of rabies vaccine in a 28-day period and one shot of Rabies Immune

The author is a microbiologist who has done rabies testing for a number of years.



## Table 1

Adams—60 raccoons, 16 skunks, 3 groundhogs, 2 bats, 2 foxes, 1 cat, 1 cow, 1 goat;

Allegheny—6 bats;

Armstrong—1 bat;

Bedford—2 skunks;

Blair—1 bat, 1 cat, 8 raccoons, 1 goat, 1 skunk;

Bucks—3 bats;

Cambria—1 raccoon, 2 skunks;

Centre—1 dog, 2 bats, 3 skunks, 21 raccoons, 1 groundhog;

Chester—3 bats;

Clearfield—1 raccoon;

Columbia—3 bats;

Cumberland—4 cats, 1 groundhog, 65 raccoons, 30 skunks, 1 bat, 1 dog, 3 foxes;

Franklin—1 cat, 1 dog, 3 skunks, 6 raccoons, 2 cows, 1 horse, 1 opossum;

Fulton—1 cow;

Huntingdon—1 bat, 7 raccoons;

Greene—1 bat;

Jefferson—2 skunks;

Lancaster—1 bat;

Lebanon—1 bat, 1 squirrel;

Lehigh—4 bats;

Lycoming—4 bats;

Juniata—6 raccoons, 1 cat;

Mifflin—10 raccoons, 1 skunk;

Montgomery—4 bats;

Perry—1 cat, 12 skunks, 35 raccoons, 1 fox, 1 groundhog;

Schuylkill—2 bats;

Snyder—1 bat;

Somerset—1 bat, 2 skunks, 14 raccoons, 1 fox;

Union—2 bats;

York—1 cat, 1 groundhog, 52 raccoons, 7 skunks, 2 foxes, 1 rabbit.

Globin. Few side effects are noted and the effective rate of this treatment is 100 percent if administered properly within a few days of exposure.

The only problem with the vaccine now is that a few doctors are too willing to give it, either because of lack of information or fear of malpractice suits. Don't be afraid to question a doctor's opinion or get a second one. Often the doctor himself seeks one. Rabies is not a disease he sees often. That is why the State Health Department has made consultative services regarding rabies available to physicians.

Fortunately, rabies is slow to develop, so in a case where the chances of rabies contact is slight, wait for the test results. Naturally, in a high-incidence area involving a highly suspect animal, it is best to administer treatment promptly. In these cases, treatment is sometimes started before testing is done and can be stopped if tests are negative.

There was some concern among deer

hunters two years ago because one deer in Fulton County was found to be rabid. This is extremely rare. There is little need to be concerned about rabies in this species unless you are actually bitten by a deer (something which almost never happens), or if you were cut while handling brain tissue.

Incidentally, you can not get rabies by eating an infected animal. Cooking kills the virus.

Also, there should be no concern if bitten by a pet hamster, gerbil or pet mouse, unless by some strange and rare occurrence it had been in contact with a suspect animal.

In summary, rabies is increasing in our state. Take precautions to prevent contact with it. If you do come in contact with a suspect animal, capture or kill it without damaging the brain, clean and disinfect the bite area, and contact the proper authorities who will send it to one of the laboratories for testing. If positive, you will receive instructions for getting treatment.



BOB SEPKO  
©1985



# Oh, Groundhog!

By Charles Fergus

One old woman was the mother of us all,  
Fed us on whistle-pig soon as we could crawl—  
Oh, Groundhog!

IN PLENITUDE of names, the woodchuck has few peers. The old Appalachian banjo tune cites “groundhog,” a good moniker for a porcine creature that grubs in the soil, and “whistle-pig,” celebrating the animal’s sharp alarm call. Another name is *monax*—Algonquin Indian for “digger.” Taxonomists chip in a fifth: *Marmota monax*, grouping the woodchuck with marmots, chunky rodent tunnelers found across the Northern Hemispheres.

The woodchuck is a common enough beast, but you wouldn’t know it—it spends 90 percent of its life under your feet. It is a digging machine par excellence, able to excavate itself into invisibility in under 60 seconds. Its tunneling is a boon to other wildlife and to the soil. The woodchuck was as nothing until we settled the continent, and its population boomed along with ours. It builds a house with bathroom, bedroom and front stoop, and keeps its estate clean. It loves a lawn, a good green sward of grass. It sleeps the winter away each year. Sometimes it dies of cancer, sometimes it keels over with a stroke.

“Woodchuck” may be a misinterpretation of the Cree word *otchek*, which actually designates a sleeker beast: the fisher. Or, “woodchuck” may hearken back to a day when more of our land was forested; then, English settlers spied this stocky brown waddler eking out a living in the woods and dubbed it “chuck,” meaning “little pig.” When the settlers cleared more land and planted crops, the woodchuck came out into the open, and, feeding on the

succulent new growth, colonized right along with them.

The woodchuck lives nearly everywhere in North America east of the central Great Plains and north of upper Georgia, Alabama, and Mississippi. Its range extends to Hudson Bay and northwest to Alaska. Close relatives, the yellow-bellied marmot and the hoary marmot, inhabit parts of the West. The woodchuck is our third biggest rodent, smaller than the beaver and the porcupine, larger than squirrels and mice. It comes in nine subspecies showing different nuances of color but having the same basic design: a solid, short-legged body, a two-foot length, a carpet of coarse brown-to-grizzled fur that ends in a six-inch handle of a tail.

## Swims and Climbs

A woodchuck can swim, climb some trees, and cover ground with a rolling gallop, but what it does best is dig. Its front paws possess four finger-like toes and a vestigial thumb, its back paws have five digits. All are black, knobby-nailed, and iron-hard. (I knew a hunter who, after cleaning his woodchuck quarry, dropped a paw into the sink’s garbage-disposal. The disposal squawked and shuddered and seized up, never to grind again.)

A woodchuck scrapes and pries with its front paws, then shovels dirt behind it with its back paws. It chisels through tree roots with its big buck teeth. As it penetrates into the ground—ears folded down to seal their openings—*monax* twists about and pushes the loosened soil back out of the hole, using

its front paws or its head. Some woodchucks wear their pates bald bulling stones out of the ground; perhaps this is why most choose a sandy loam for their digs. One curious naturalist weighed the tailings of a good-sized den: 716 pounds of dirt.

A woodchuck digs straight down for about a yard, then levels off. Often its tunnel branches, each tube running 10 to 45 feet. Dirt piles up at the burrow mouth, an excrescence in a neatly trimmed hayfield or a slight rise in a hedgerow's unkempt line. If it can, the woodchuck starts its den between tree roots or rocks, discouraging enemies from enlarging it and entering. Most burrows have three or four entryways: the main one, plus scattered "plunge holes" opened from below so as not to spread telltale dirt. If danger threatens—a fox, a person—the woodchuck

**A WOODCHUCK often starts its den between tree roots or rocks to discourage enemies from enlarging it and entering. Most burrows have three or four entryways—the main one and several plunge holes.**



bolts for the closest aperture.

A burrow twists and pockets and pods. Nest chambers are 10 to 18 inches wide and about a foot high; located above the rest of the tunnel, the rooms never flood. A woodchuck lines its bedroom with leaves and grass. An old bedchamber may be relegated to a bathroom, where wastes are carefully covered over with soil.

### Homes for Others

Old burrows provide homes for animals unable to dig their own. One network housed, in succession, the original woodchuck; a rabbit; a skunk; a raccoon; and a family of red foxes. Other sometime tenants include pheasants, weasels, vultures, and toads. Groundhog burrowing improves the soil, dredging up untold tons of subsoil to be weathered and more speedily turned into topsoil.

Emerging from its den, a woodchuck squats in the foyer and leads with its nose. Then out come eyes and ears, crowded together at the top of the skull. A woodchuck can hear a twig snap 100 yards away. Scent a vulpine enemy. See a person get out of a pickup truck a quarter-mile distant. If alarmed, the whistle-pig whistles—a piercing blast like the one you make with thumb and forefingers stuck between your teeth. Other woodchucks hear and pop up on their haunches. When they locate the hazard, they hurry underground.

Woodchucks eat well. They desire strawberries—fruits and plants. With their dextrous forepaws they feed stalks of clover into their mouths the way you handle a banana. They clamber up small trees and chew on the leaves. They munch apples, nibble chickweed and dandelion and buttercup, feast on corn, beans, carrots and lettuce. Sometimes they dig under fences to get at gardens. They need not bother with drinking, as they get enough water from dew-soaked grass and from the vegetation they eat.

At the height of summer, a 10-pound woodchuck (a good-size adult) will put



away a pound and a half of forage daily—tantamount to a 200-pound man consuming 30 pounds of chef's salad. A groundhog's gluttony builds fat beneath its skin and within its body, fat that will sustain the animal over winter. One day in October, the woodchuck waddles to the den, squeezes inside, wedges itself into its bedroom, tucks its nose beneath its tail, clamps its lips and eyelids shut, and sleeps.

It sleeps unto the verge of death. Its body temperature plummets from above 90 degrees F. into the low 40s. Its heart lags from 80 or 100 beats a minute to 10, sometimes 5. Puttering along, the woodchuck's system remains exceedingly resistant to disease and infection. It takes a hibernating chuck some six hours to wake up. The animal periodically arouses from its slumber, but it doesn't eat, go outside, or pass urine or feces. So efficient is its slumbering that the creature loses only one-quarter of its weight during the 130- to 150-day fast.

Whatever conks the woodchuck out, it's in the blood. Scientists have isolated a "trigger substance" which, when injected into ground squirrels, puts them to sleep. Another research group gave rhesus monkeys shots of blood components from hibernating woodchucks. The monkeys' heart rates fell by half, their temperatures by 5 degrees F., and for hours they slept like logs.

Medicine would like to learn the mechanisms of hibernation. Inducing the state in humans might drastically reduce bleeding and shock caused by heart transplants, cancer removal, and brain surgery. A hibernating body could spend less energy on maintenance, more on healing. And, of course, there's the dream of dropping travelers into suspended animation and sending them off through space.

As winter grudges toward spring, strange rites take place outside certain groundhog dens. Men in top hats and tails, or long white robes, gather at the chosen hibernacles and call to the occupants within. In Punxsutawney, in western Pennsylvania, the men suggest

that they speak "groundhogese" to their subterranean charge. At the other end of the state, near Quarryville, the revelers chant: "Let the scientific fakirs gnash their teeth—today the prophet comes!"

It is said the groundhogs—Punxsutawney Phil and Octorara Orphie, respectively—are coaxed out of their dens and urged to look about. If they see their shadows, we are in for six more weeks of winter. If no shadows are cast, then spring is just around the corner. This tradition, nonsense or no, comes to us from Europe, where the hedgehog was said to make a like prognostication on Candlemas Day, February second. In the New World, German farmers transferred the duty to the woodchuck.

Actually, it is not the urge to make predictions or to end boredom or even to appease hunger that finally hauls the woodchuck up. It is, in a word, sex.

The males hasten out first. In Pennsylvania the randiest of them remove from their dens in—yes—early February. Farther south they emerge earlier; to the north, later. They stump about in the snow, going den-to-den. The females, still asleep, remain oblivious. When two males meet, they growl and grunt and clatter their teeth like typewriter keys. Sometimes they fight. Ears are ripped, lips shredded, tails truncated.

### Serious Trysting

Serious trysting starts several weeks later, when females admit the males (tails wagging, if they've kept them) into their dens. We know little of woodchuck intimacy. A male may stay with a female for several days, but then he will be up again in search of a new mate. Biologists who radio-tagged the questing males identified two types: a stay-at-home who guards a territory overlapping several females' dens; and a rover, who rambles all around.

Baby woodchucks are born a month after mating. They number three to five and look like wrinkled sausages with hefty front arms. In less than 60

days, fully furred, they come blinking into the world. Their mother shows them which foods are good to eat. Periodically she hustles them back into the burrow, teaching them to run first and ask questions later.

By midsummer the chucklings fan out: a thousand yards constitutes a journey, two miles an odyssey. Foxes, hawks, and dogs cull the wanderers. Many get run over by cars, especially those that tarry along berms licking gravel dusted with road salt. Survivors remodel abandoned woodchuck burrows or dig their own.

### Stay-At-Home

Once it settles on a territory, a woodchuck becomes a stay-at-home. If it located itself in a perfect habitat—a fencerow surrounded by clover—it may travel no farther than 50 yards for the rest of its life. In New York, a biologist found burrows grouped into wards, or neighborhoods, suggesting a sociability heretofore unnoticed in the species. There, whistle-pigs moved freely among burrows in their own neighborhood (a patch of 70-some acres), but almost never visited adjoining wards.

Sometimes woodchucks rub people the wrong way. Homeowners worry at tunnels undermining foundations. Farmers fume when cutting machines dull themselves on rock-strewn mounds of dirt. Gardeners resent the relentless forays. In times past, we turned the tables on groundhogs by eating them. I have farm friends who recall frequent marmot meals—“like musky chicken,” one told me. Two of the catchier couplets in the Appalachian Groundhog Song are: “Here comes Sal with a snigger and a grin, groundhog gravy all over her chin”; and “Skin the whistle-pig, save that hide, makes the best shoestring ever I tied.”

Woodchucks also perish from a bizarre infliction called malocclusion, when the big front teeth, which grow one-sixteenth of an inch a week, fail to meet and to grind each other down. The wayward incisors circle out from

the jaws and return to penetrate the skull. What with predators, Pontiacs, truculent gardeners, and tooth problems, the average woodchuck lives 14.5 months. True ancients survive to age five.

Robert Snyder keeps a colony of 200 woodchucks at the Penrose Research Laboratory, which he directs, part of the Philadelphia Zoo. In the 1970s some of his woodchucks came down with hepatitis. Next, many of the infected animals developed liver cancer. After verifying hepatitis in wild woodchucks, Snyder isolated the virus and found that it differed only slightly from the one causing the disease in humans. Soon scientists realized that chronic hepatitis precurses cancer of the liver in humans, as well. Today the lowly whistle-pig is the top laboratory animal for testing drugs, vaccines, and early detection methods for liver cancer.

The Penrose woodchucks also suffer from arteriosclerosis. Fat in their food (they eat monkey chow) spurs cholesterol production and high blood pressure, clogs arteries, and triggers heart attacks and strokes. Nor does a wild woodchuck's vegetarian diet protect it completely: farm-fed chucks live long enough to develop the disease. Snyder believes woodchucks would make excellent models for studying arteriosclerosis. Larger than rats and rabbits, they would mimic humans better. Whistle-pigs are a sight cheaper than monkeys, and a great deal easier to maintain.

### Extending Range

In this century, woodchucks have edged farther into the Midwest and the South, subtly extending their range where new acres are put to the plow. They are colonizing levees, dikes, and the grassy embankments of Interstate overpasses. As long as we hold the forests at bay and keep on sharing our harvests with them, woodchucks will prosper. They follow sound maxims for living: Eat well. Stay alert. Keep a good roof over your head.



# The American Beech

(*Fagus grandfolia*)

By Karl J. Power

The American beech is one of the predominant deciduous trees of Penn's Woods. Beech trees grow best in sandy creek bottoms, but also thrive well on hill-sides with oaks and other mast producing trees. The growth rate of the American beech is very slow. It reaches an average height of 60 to 70 feet, and occasionally 100 feet.

The trunk of the American beech is solid and round, with a smooth thin bark. Bark color is a dull silvery gray with occasional thin darker lines through it.

The oval-shaped leaves are 3–5 inches long. Beech leaves have distinct veins and toothed edges. New spring foliage is a soft green that turns glossier as summer approaches. Beech leaves turn brilliant yellow in the fall.

Beech buds are unique, long and slender with sharp pointed tips. They are almost an inch in length, which makes them longer than the buds of any other tree. Buds are leather tan in color, with a criss-crossed pattern from the tightly wrapped layers. White-tailed deer love to browse on these buds and small twigs.

Seeds (or nuts) of the beech tree are contained in burr-like husks. Each husk contains two or three sharp angled nuts. Beechnuts are sweet and edible making them a popular food for wildlife. Wild turkeys, deer, black bears, and raccoons are just a few of the animals that enjoy feeding on beechnuts. The beechnut, as well as the entire tree's system, is oily. This oil is resistant to electricity, which makes the American beech much less likely to sustain lightning damage than other tree species in Pennsylvania's woodlands.

The beech tree's dense leaves and low hanging branches make heavy shade which doesn't allow much plant growth



Illustrations by Rita Power

under mature trees. Beech trees have a multitude of surface roots that produce water sprouts (small trees growing up from the root system). Squirrels inadvertently plant many beeches by burying nuts for winter food storage, and not digging them all back up.

Beech trees usually grow in groves, producing good feeding areas for wildlife. Deer trails often weave through stands of beeches, making them hot spots for deer hunters. The multitude of saplings with their dense brown leaves still attached make clear shots difficult. The best location to post for deer hunting is along the edges of the groves, or near one of the few openings in the trees.

The American beech is relatively free of insect infestations and fungus diseases. The beech's most common pests are borers and scale insects. The shallow fibrous root system of this beech makes it difficult to transplant. If you are interested in purchasing an American beech for your landscape, it may be hard to locate for this reason. The European and weeping beech trees are more likely to be found at local nurseries or garden centers. Beech trees are valuable to your property for their beauty and shade, as well as being excellent wildlife attractors.



**CONTESTANTS** receive final instructions before carrying out field portion of FFA Wildlife Contest on SGL 176 near State College.

## Getting the Kids Involved Through the . . .

# FFA Wildlife Contest

**By Bob Lauffer**

**I**MAGINE yourself closely examining a set of tracks in the mud to determine what animal left them, or inspecting a jawbone, a skull, some feathers or a bit of fur to identify what it came from. Or perhaps you have tried to identify one of our feathered friends by its distinctive song.

During the past six years, hundreds of students have been introduced to these and many other outdoor experiences through the state Future Farmers of America wildlife contest. Since 1980, more than 250 FFA members have competed at the state level, and hundreds of others have participated at chapter, county and regional levels.

Last year, as I watched nearly 70 contestants vie for recognition at the state contest, I marveled at the interest, enthusiasm and expertise exhibited by these high school vocational-agriculture students. I couldn't help but hope that some of these young men and women would choose lifetime careers in the rewarding field of wildlife management.

As chairman of the State FFA Wildlife Contest since its inception in 1980, I also found myself recalling the time, just nine years ago, when it was only a dream — a dream shared by three vocational-agricultural teachers in Lancaster County.



It all started in 1977, my first year of teaching at Garden Spot High School in New Holland. I was fortunate to come into contact with two innovative and dedicated professionals, Dr. Philip Oglie, my co-teacher in the environmental agriculture program, and J. Carl Graybill, Jr., now assistant director of the Game Commission's Bureau of Information and Education. Carl was then a vo-ag teacher at the Ephrata Area High School.

Carl was assigned by Penn State University to be my mentor during my first year of teaching. As he, Phil and I shared ideas, we found we had several things in common. Among these were keen interests in wildlife and the outdoors, and an awareness that we all worked directly with the most precious natural resource, students. The three of us were talking one afternoon when Carl and Phil mentioned an idea they had been tossing around. They wanted to stimulate and encourage students interested in wildlife. Each of us knew that many vo-ag students seem to enjoy, and in fact thrive upon, the competitive nature of the FFA's many contests. These events create tremendous motivation and interest, while providing a practical application of classroom and laboratory instruction. There were no contests, however, for those interested in natural resources. We set out to implement a Lancaster County FFA Wildlife Contest to fill this void.

### Idea a Reality

Our idea became reality in the fall of 1977, when twenty-four FFA members participated in the first county wildlife contest. Much of the contest content, format and logistics was worked out by Oglie and Graybill, and a tremendous amount of assistance was provided by District Game Protector Ted Fox and Charlie Strouphar, manager of the Middle Creek Wildlife Management Area.

After conducting the contest successfully at the county level for a couple of years, and seeing the interest and number of participants grow, we expanded



TRACK IDENTIFICATION is an important part of the contest. Here, two FFA members study bird and animal prints left in a mud puddle. Sometimes what seems to be a simple answer, isn't.

it to include FFA members from Berks and Lebanon counties.

At that time Carl Graybill was serving as an in-service instructor for a wildlife management course offered by PSU. It was designed for vo-ag instructors who wanted to learn more about teaching this subject. In this capacity he shared the wildlife contest program with many vo-ag teachers and 4-H leaders, and encouraged them to implement similar contests in their home areas. Many did so.

In the summer of 1978, Graybill and I put on an educational demonstration as a part of State FFA Activities Week, exposing interested students and FFA advisors to the components of the contest. We were encouraged by the interest of members and advisors alike. As a result, we proposed the development of an FFA Wildlife Contest at the state level. Our request, however, was initially killed in committee. It seemed impossible to us that an idea which



**CHARLEY STROUPHAR**, in uniform, manager of the Middle Creek Wildlife Management Area, discusses wildlife habitat considerations with **Bob Lauffer**, left, and past winners of the state FFA wildlife contest.

already had had such positive effects could fall on seemingly deaf ears.

I was frustrated and disappointed. But thanks to the encouragement of Carl Graybill—who by this time had accepted a position with the Game Commission—Phil Ogline, Ted Fox, Charlie Strouphar, Mike Ondik, then director of PSU's deer pens, and others, we were able to turn that frustration into a commitment to see our dream become reality. Being the "young rabble-rouser of the group," and also needing a thesis topic for my master's degree, I decided to mesh both goals. I undertook both with a passion.

Through the assistance of my thesis advisor, Dr. James Mortensen, and Dr. Edgar P. Yoder, PSU staff person in charge of FFA Week at that time, we set out to demonstrate the need for an FFA wildlife contest at the state level. In my thesis I attempted to show how such a contest would encourage students to learn more about wildlife management.

Interested vo-ag teachers were contacted, and an extensive letter writing campaign ensued. Furthermore, Charles F. Lebo, adult advisor of the Pennsylvania Association of FFA, suggested the best way to implement a

state wildlife contest. He also informed us of the concerns that had bothered the contest review committee earlier. His advice helped us surmount some of the initial hurdles.

Again we turned to the PGC and other wildlife professionals at Penn State for assistance, input and support. A committee was formed to get a suitable contest format on line.

Charles M. Laird, then supervisor of the Game Commission's Northcentral Region, and Lester Harshbarger, land management officer in the region, arranged access to suitable contest sites on State Game Lands 176, Centre County. This Game Lands became the focal point for the outdoor portions of the contest, which now includes identification of wildlife food, tracks, sign (droppings, gnawings, feathers, bones and fur, for example), and habitat evaluations in which contestants match wildlife species to specific habitat sites.

LMO Harshbarger coordinates the wildlife foods and habitat site evaluations. District Game Protector Joe Wiker coordinates the wildlife tracks portion, while Mike Ondik developed the wildlife sign segment.

The indoor portion of the contest includes a comprehensive written exam



covering wildlife natural history, management, and the various state agencies involved with fish and wildlife management. Contestants are required to identify, from slides, ten species each of birds, mammals and fish, and ten species of reptiles and amphibians. Additionally, they must identify ten bird species by listening to recordings of their calls. Bird and mammal slides are provided by Carl Graybill, who also oversees the entire outdoor portion of the contest. Slides of fish, reptiles and amphibians were provided by Stanley Paulakovich, retired Southeast Region assistant supervisor for the Pennsylvania Fish Commission. Steve Ulsh, Information Specialist with the Pennsylvania Fish Commission, currently provides slides of cold blooded species for the contest.

Six years of evaluation and revision have led to some minor changes, but the contest is essentially the same as the one started in Lancaster County some nine years ago.

It has been interesting and personally rewarding to see the ways in which the basic model of the FFA Wildlife Contest has been adapted and utilized. Components of the contest have been used in educational programs from the kindergarten through adult levels. They have been incorporated into the programs of county and state Conservation Leadership Schools, 4-H activities, and the statewide Envir-o-lympics competition.

As I recall the efforts of so many dedicated individuals, especially the vo-ag teachers and FFA members who initially supported the idea, it's obvious that literally dozens of folks deserve thanks. Let me just say how much I appreciate everyone who was involved. You know who you are, and also know that without your efforts the contest

would never have become such a success.

I believe the FFA Wildlife Contest has enhanced our most important natural resource, the minds of our young people. Our reward is the knowledge and satisfaction that the future of Pennsylvania's wildlife will be in good hands in the years to come.

### The Top Five

The top five contestants in the six Pennsylvania State FFA Wildlife Contests to date, with their schools and home counties are:

1980 — (1) Lowell D. Graybill, E. Lancaster Co., Lancaster; (2) Paul Work, Brockway, Jefferson; (3) Martin Miller, Twin Valley, Berks; (4) Peter Smith, Walter Biddle Saul, Philadelphia; (5) Greg Krick, E. Lancaster Co., Lancaster.

1981 — (1) John H. Sweigart, Jr., E. Lancaster Co., Lancaster; (2) Kevin Dufford, Knoch, Butler; (3) Pam Trostle, Twin Valley, Berks; (4) Cathy Chomeley-Jones, Warwick, Lancaster; (5) Kimber Price, Altoona AVTS, Blair.

1982 — (1) Lamar King, E. Lancaster Co., Lancaster; (2) Michael Weaver, E. Lancaster Co., Lancaster; (3) Pam Trostle, Twin Valley, Berks; (4) Ronald McKinney, United, Indiana; (5) Rodney Kantz, Selinsgrove, Snyder.

1983 — (1) Nelson Ruhl, Elizabethtown, Lancaster; (2) Mike Good, Elizabethtown, Lancaster; (3) Robert Pegg, United, Indiana; (4) Ron McKinney, United, Indiana; (5) Chris Horne, Elizabethtown, Lancaster.

1984 — (1) Tony Bevel, Elizabethtown, Lancaster; (2) Chris Horne, Elizabethtown, Lancaster; (3) Dean Yale, Athens, Bradford; (4) Mike Sweigart, E. Lancaster Co., Lancaster; (5) Virgil Wilford, Derry Area, Westmoreland.

1985 — (1) Virgil Wilford, Derry Area, Westmoreland; (2) Ron Thompson, United, Indiana; (3) Roger Most, Jr., Somerset Co. AVTS, Somerset; (4) Kevin Walters, Holidaysburg Area, Blair; Bradley Gates, Walter Biddle Saul, Philadelphia.

Bob Lauffer is a vocational-agricultural teacher at the Garden Spot High School in New Holland, Lancaster County.



**WE DON'T** know this hunter's name, but he had a good season.

*Most of these pictures are from the agency's archives. Although the details surrounding some have disappeared, we're sure many readers will enjoy a few views from the past. It's apparent that much about hunting and trapping has changed over the years, but the challenges and thrills that attract outdoorsmen today are exactly the same as they have been since the . . .*

**CHARLES WEAVER** got this big buck in 1935.



**ARCHIE ROSENBERRY**, above, caught these foxes in the fall of 1936. He used honeycombs soaked in hard cider for bait. Photo from Bill Cromwell, Buffalo, NY. Does, below, were bagged in 1938, when only antlerless deer were hunted; 171,662 were taken.

**THE BRANDT** brothers, Wayne, John, Guy and Fred, are pictured here after a successful hunt while hunting near Williams Grove.







"WHO sez deer huntin's tough?"

# DAYS OF YORE



THE BUCKS above and below were taken in 1937, an antlered-deer-only season. Hunters took 39,347, a record harvest at that time.



BILL SINQUETT, who was 85 at the time, took this 10-pointer from Pike County in 1934.



each con-

THE Conococheague Hunting Club, Amberson Valley, Franklin County, had a good season in 1935.





## FIELD NOTES



### Good Signs

**CUMBERLAND COUNTY**—Based on my own sightings and reports I've received from others, it appears the pheasant population may be on an up-swing. Quite a few native birds and tagged game farm birds survived on the pheasant study area in this district during the winter. If the conservation practices used on this study area are adopted by enough landowners, and the Commission's attempts to develop a more viable strain of pheasant continue to show promise, there might be better days ahead for ringnecks and hunters. Let's keep our fingers crossed. —DGP Gregory Houghton, Manchester.

### Unlucky Seven

**INDIANA COUNTY**—An example of the "enough is enough" feelings that have been expressed to me is shown by a father and son who, on two occasions less than a month apart, provided information that resulted in the successful prosecution of seven individuals for poaching deer. My hat is off to these, and to the many other concerned folks who provided information to my office during the past year. It is gratifying to have such public cooperation for our law enforcement efforts. —DGP Mel Schake, Indiana.

### Part II

#### A Comedy of Errors

**ALLEGHENY COUNTY**—In a Field Note last month I told how a wild gobbler was added to the list of nuisance wildlife I've had to deal with in this urban district. This bird was in the habit of coercing domestic turkeys into the wilds with him. My first idea was to tranquilize him. I hit the bird on my fifth shot, but the dart was apparently faulty as no drug entered the bird. My second idea was to net him, but although the net is nearly invisible, he had no trouble seeing and avoiding it. My third idea was to net him when he entered the pen of domestic birds. The next day the owners phoned to say the old boy was trapped, but by the time I arrived he had escaped under the pen. The bird was captured again the following day, after the bottom of the pen had been secured, so I finally got my hands on him. I carefully wrapped him in a blanket to keep him immobile. But as I was leaving, my bundle exploded and the gobbler flew away. Final score: turkey 4, game protector 0. —DGP Dale Hockenberry, Pittsburgh.



### Mistaken Identity

After several individuals called about a black bear near the Valley View Home, two deputies went to investigate. On arrival they were told the maintenance people had already captured the culprit—a black plastic garbage bag. I believe the men at a certain garage need their binoculars checked. —LES Larry Harshaw, Hollidaysburg.



## Reciprocate

**LEBANON COUNTY**—While I was on duty at the Farm Show, a cooperator in one of our public access programs came up and offered a good suggestion. Although he has had to tolerate damage to fences, littering and blocked lanes, he continues to permit hunting on his property. He would, however, still like to see a little reciprocity from the hunters who use his farm. He doesn't want free labor to his farm work. He would like those hunters who visit his property in the fall to show up at other times of the year to help with such things as planting seedlings, creating brushpiles, erecting nest boxes, and to help with other jobs to benefit wildlife. Such a gesture, which is actually just an extension of what the agency provides co-operators, would benefit landowners, hunters and wildlife. I think it's a good idea. Do you?—DGP G. W. Smith, Lebanon.

## Food for Thought

**DAUPHIN COUNTY**—The SPORT Program works sometimes in ways we don't anticipate. A few months ago a lady called to report a deer-baiting incident. Several days later she called back to tell me that after 9 years of trying she finally got a deer. She reasoned that because she got involved and reported a possible violation, providence was kind to her.—DGP Skip Littwin, Hummelstown.

## Strong Opinion

**BEDFORD COUNTY**—Attitudes toward deer vary widely. While operating a roadblock in deer season, an elderly woman in one car stated: "I'll tell you how I feel about deer. I wish they'd kill all of them except one pair, and those two should be released in California. By the time they work their way back here, I won't be gardening anymore."—DGP Tim Flanigan, Manns Choice.

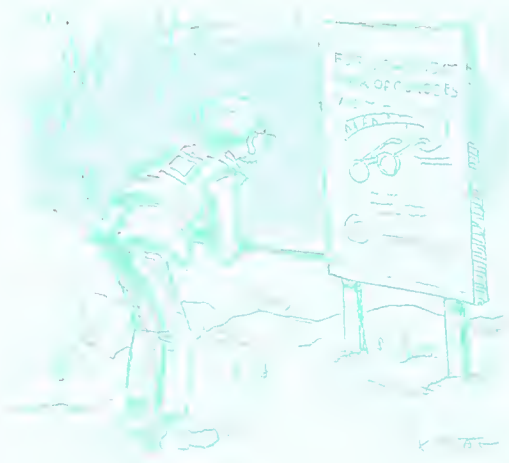


## Anticipate Company

**ELK COUNTY**—During the January elk survey, I spent several hours flying over this county, counting elk. I couldn't help but notice a lot of different types of treestands. Some were simple platforms with ropes hanging down, others were much more elaborate. Some were enclosed and had roofs, and several even had chimneys poking out. Now that I know where they are, I'll be sure to visit some of them next deer season, as they are located on State Game Lands and State Forest Lands, where such stands are illegal.—DGP Harold Harshbarger, Kersey.

## A Good Turn

**CAMERON COUNTY**—The September '85 issue carried a Field Note I wrote about the theft of 12 bluebird boxes which Paul Roland, Elizabethtown, had erected and maintained in the Quehanna Wilderness Area. As soon as that issue came off press my phone began ringing, and within a few days letters began arriving, all from people concerned about Paul's plight. A short time later I received 12 new bluebird boxes from Ralph Vaughn, Saegertown, and T.P. Hawthorne, Mont Alto. Paul sends his thanks, and I certainly add mine. Thanks, gentlemen.—DGP Joe Carlos, Driftwood.



### How True

**NORTHUMBERLAND COUNTY**—A friend told me that during deer season on two separate occasions one day, an antlered deer walked between him and another hunter. Lowell didn't think it was safe to shoot. As quitting time approached, Lowell walked up to the hunter to talk about the deer that had come between them. As he approached, Lowell discovered that the other hunter was actually a large fluorescent orange sign. Lowell doesn't regret passing up the opportunities to bag a buck. "It just wasn't worth taking the chance," he says. —DGP James M. Kazakavage, Sunbury.

### Poor Choice

**MONTGOMERY COUNTY**—A woman called me for assistance because she had been bitten by her pet raccoon. She had purchased the animal nine months earlier when it was a cub. One day, while she was holding the 25-pound animal, it was startled by a passing vehicle and bit her. Several days later the raccoon became sick and occasionally went into fits of rage. This woman learned the hard way that wild animals, despite the best of intentions, never make good pets. Wild animals are extremely unpredictable and capable of inflicting severe injuries when least expected. Please leave wild animals in the fields and forests where they belong. —DGP William Wasserman, Montgomeryville.

### A Fine Token

**LANCASTER COUNTY**—I heard many stories while manning the Commission's display at the Farm Show, but one sticks in my mind above all others. A Crawford County gentleman told me about several companions who received permission from a landowner to hunt waterfowl. They had a good year, not in terms of the number of birds taken, but for the companionship and enjoyment they shared. They ended the season by presenting the landowner with a ham, in appreciation for the permission to hunt on his land. I am sure this was a pleasant surprise for the landowner; and I am sure these sportsmen will be welcome again, not just because of the ham, but because of their courteous behavior all season long. —DGP Ed Gosnell, Quarryville.



### Traps are Safer

**ERIE COUNTY**—Sometimes hunters get a bum rap. I received a call last winter from a property owner who was upset about numerous bullet holes in the side of her mobile home. Hunters were being blamed. Upon examination, however, it was discovered that the bullet holes in her home corresponded, in location and number, with exit holes in the neighboring mobile home. The "hunter" in this case was her next door neighbor who had been shooting at a mouse inside his home with a .22. —DGP Andy Martin, Erie.



## Trend Setter

**BUCKS COUNTY**—Around the end of January, I received a telephone call from Mr. Murry, Yardley, about a dead seal at the end of his driveway. The “seal” was gone upon my arrival. I contacted the Yardley Borough Police, who referred me to Gene Reimer, the animal control officer for the area. Gene told me he had picked up the animal and that it was a river otter. I think this must be a modern day first for the county. We salvaged the carcass and will have it mounted for educational displays. —DGPE. F. Bond, Fountainville.

## The Verdict's In

**GREENE COUNTY**—President Judge Glenn Toothman retired last December after many years of exceptional service to the district. Judge Toothman was a strong supporter of wildlife conservation during his tenure, much to the benefit of the area's sportsmen. On several appeals brought before him, Judge Toothman issued consistently favorable decisions for the Game Commission, and thereby helped deter illegal hunting activities. Thank you for your great support, Judge Toothman, and enjoy your retirement. —DGP S. A. Kleiner, Waynesburg.

## 3 out of 5

**ADAMS COUNTY**—During a four-day span in January, I had to deal with five red-tailed hawks. One died of unknown causes, and another died when a sharp bone it had ingested punctured its crop and caused fatal infection. One had a concussion, another had a dislocated leg, and the fifth had a damaged wing and tail. With the assistance of veterinarian Dr. Woodward, the three injured ones were treated and released. It's not unusual to hear of injured animals, but I've never had anything like this occur in such a short time. —DGP Lawrence D. Haynes, Gettysburg.

## Don't Ask Us

**VENANGO COUNTY**—While I was presenting a wildlife program to a group of pre-schoolers, one kid stated, “My dad once shot a spot.” When I asked what a spot was, he said, “You should know, you're a Game Protector.” (I'm still asking, “What is a spot?”) —DGP Leo Yahner, Franklin.



## The Hard Way

The brittany's point was picture perfect. As the pheasant flushed I watched the hunter swing, but when he fired I was startled by what seemed to be the roar of a small cannon. The bird and hunter disappeared in a cloud of smoke. Only moments later, after the smoke began to clear, could the hunter see that the bird had fallen to earth. The brittany retrieved the bird beautifully. The use of muzzleloading shotguns is not widespread, but to the purists who use them, they are the only way to hunt small game. —SIE Barry K. Moore, Saltsburg.

## 150 Yards

**LYCOMING COUNTY**—As Deputy Wall was issuing a citation for a Safety Zone violation, the hunter asked how long the restricted area is. A youngster hunting with him immediately said, “It's a football field and a half, just like Mr. Sturt says in hunter education.” —DGP Ron Stout, Jersey Shore.

## Smoothin' It

**MCKEAN COUNTY**—I often chuckle when people tell me they are going to camp to rough it. I've always felt more like George W. Sears, better known as "Nessmuk," the outdoor writer and conservationist who lived and camped in northcentral Pennsylvania during the late 19th century. In his book *Woodcraft* he states: "We do not go to the green woods and crystal waters to rough it, we go to smooth it. We get it rough enough at home, in towns and cities, in shops and offices, in stores, banks, at work, etc.!"—DGP John Dzemyan, Smethport.



## Cold Feet

**BRADFORD COUNTY**—Deputy Charlie Fox and I attended a weekend meeting at Milford last winter to plan our hunter education camps. The Milford facility is solar heated, and half of it is built into a bank to conserve heat. Our room was on the second floor, but a door opened to the ground level in back. In the middle of the night Charlie got up to go to the bathroom, but got the doors mixed up. He opened the outside door and stepped out into the snow. When his bare feet hit the snow . . . well, now I know what is meant by a "blood curdling" scream.—DGP William A. Bower, Troy.

## Practicing

**JEFFERSON COUNTY**—A ruffed grouse spent a lot of time around my wife's bird feeder this winter, but we never saw it feed on any of the food. It seemed to enjoy just being with the other birds. Even more interesting was watching this bird drumming on logs next to the feeder. He performed even on zero-degree days with blowing snow.—DGP Don Garner, Punxsutawney.

## Going For Fifteen

**GREENE COUNTY**—Robert "Scopie" Wood, Jefferson, has a streak going. After he shoots a deer he makes sure to pick up the empty cartridge case, which he then reloads for the next season. Over the years he has used the same case to kill fourteen deer. If everyone operated like this, the ammunition makers would be out of business.—DGP Robert P. Shaffer, Carmichaels.

## Packed

**LUZERNE COUNTY**—A deer hunter was surprised at the amount of equipment in my state vehicle. I got to thinking about it and calculated that a game protector has to carry 25 different printed forms, including the Law Procedure and Policy Manuals. In addition there are Safety Zone and related posters, fire extinguisher, first-aid kit, animal capture stick, flashlight, hip boots, rain gear, coveralls, etc. Plus county, city, topographic and Game Lands maps.—DGP Robert W. Nolf, Conyngham.

## Lunch Time

On a cold raw December day, with a three-inch crust of snow on the ground, Food & Cover Foreman Wayne Wall was bulldozing brush on State Game Lands 201. As soon as Wayne shut down for lunch, a flock of sparrows, cardinals, juncos, blue jays and nine bluebirds flew in to scour the recently cleared area for food.—LMO Ken Zinn, Jersey Shore.



# Third Largest Deer Harvest Reported

**T**HE often-expressed belief that Pennsylvania's deer population is declining has been solidly refuted by reports filed by successful hunters. Data compiled by two independent private computer firms, which processed the 1985 deer harvest cards, showed Pennsylvania hunters reported the third largest harvest on record.

The 1985 Official Deer Harvest Report shows a reported total harvest of 161,428 — 76,097 bucks and 85,331 antlerless deer. Based on known reporting rates, the calculated actual harvest would easily exceed 310,000.

Commenting on the 1985 season, Dale Sheffer, who directs the Bureau of Game Management, said, "These are big numbers — we're delighted. For the first time in three years we harvested enough deer to halt population increases that have bothered us since 1980. This is bound to reduce overbrowsing and result in healthier animals."

Sheffer went on to say, "From everything we've seen, the 1985 harvest was on target — even our decision to extend the 'doe' season by a day. Because we had good weather, most hunters felt we took enough deer Monday and Tuesday, but our reports said we didn't, and now the figures confirm we were right."

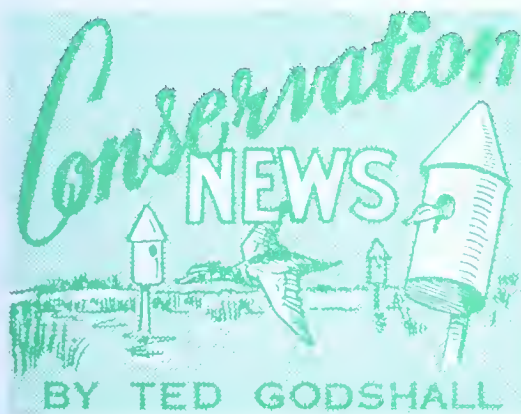
"Normally, when we extend antler-

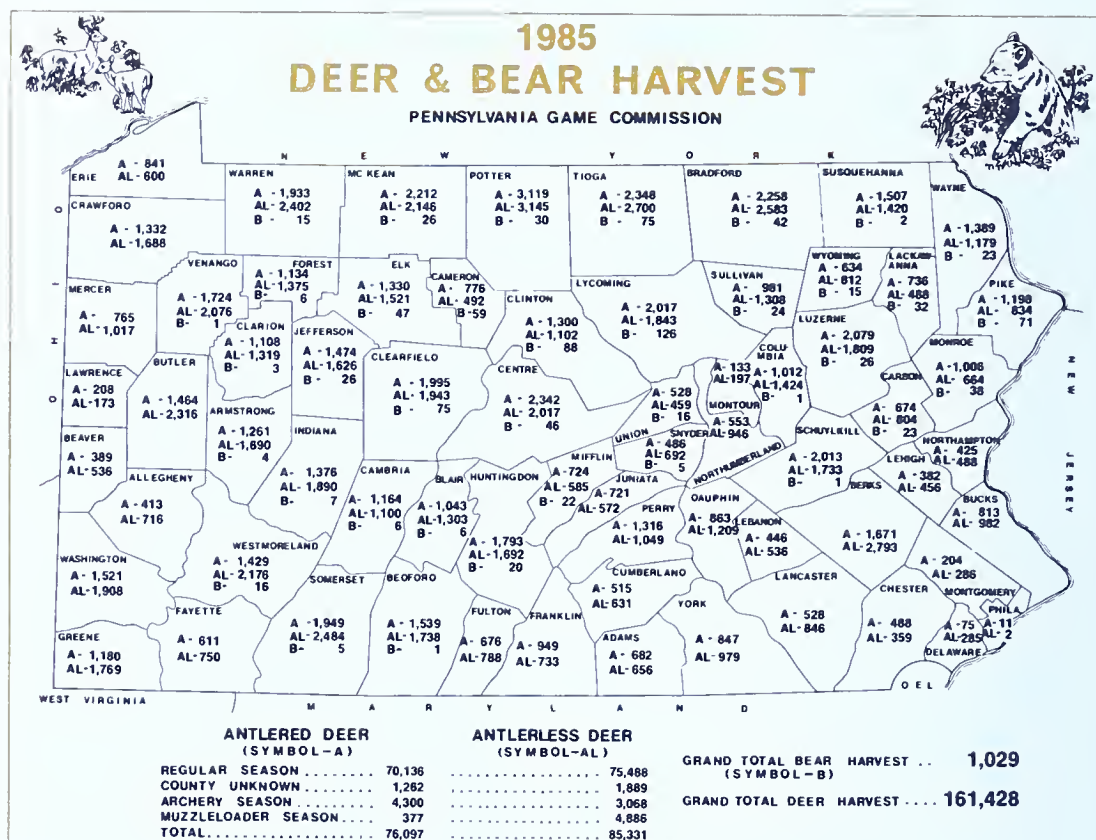


**LEE GEHRINGER, Virginville, hunted bear for 25 seasons in Pennsylvania before attaining success. Lee took this blackie in Clinton County, now is convinced that perseverance pays.**

less season by a day, we can expect to increase the harvest about 15 percent," noted Sheffer. "In 1985, the extension produced 13,286 report cards — an increase of 15.48 percent. I hope that helps confirm the fact that we know what we're doing, and we don't just sit around tossing coins in the air. We'd be in a lot more trouble now if we hadn't extended."

Taking that point a step further, Sheffer said, "It's important to bear in mind we have no control over the number or location of antlerless deer taken by archers and flintlock hunters. The data show those two groups took 2300 more deer in 1985 than in 1984. If they hadn't taken additional deer, and if we hadn't extended, the 1985 antlerless harvest would have again fallen below 70,000."





We had to take at least 79,000 just to stabilize the herd.”

Sheffer noted that 1985 was the sixth consecutive year hunters reported taking more than 70,000 bucks. “If the deer herd were declining, as some claim, we couldn’t maintain a buck harvest of that size very long,” said Sheffer. “Hunters can’t take deer that don’t exist, and the facts are—of the 23 most successful buck seasons in the state’s history, 22 have occurred in the last 22 years—right back to the time our modern deer management program started.

“I think it’s also important to remember,” said Sheffer, “that cards filed by hunters tell only half the story. When cross-referenced against deer actually checked in the field and in processing plants, we know that only 55.7 percent of the successful buck hunters filed cards. The antlerless reporting rate was even worse—only 49.1 percent. That calculates to over 136,000 bucks and 173,800 antlerless deer—a total harvest of more than 310,000—and that doesn’t

include deer killed for crop damage, by poaching, or on the highways.”

According to Game Commission records, the highest all-time reported buck harvest occurred in 1967 when 78,268 were taken. In 1984, 76,500 were taken. The most antlerless deer—171,662—were taken back in 1938 at a time when buck season was closed.

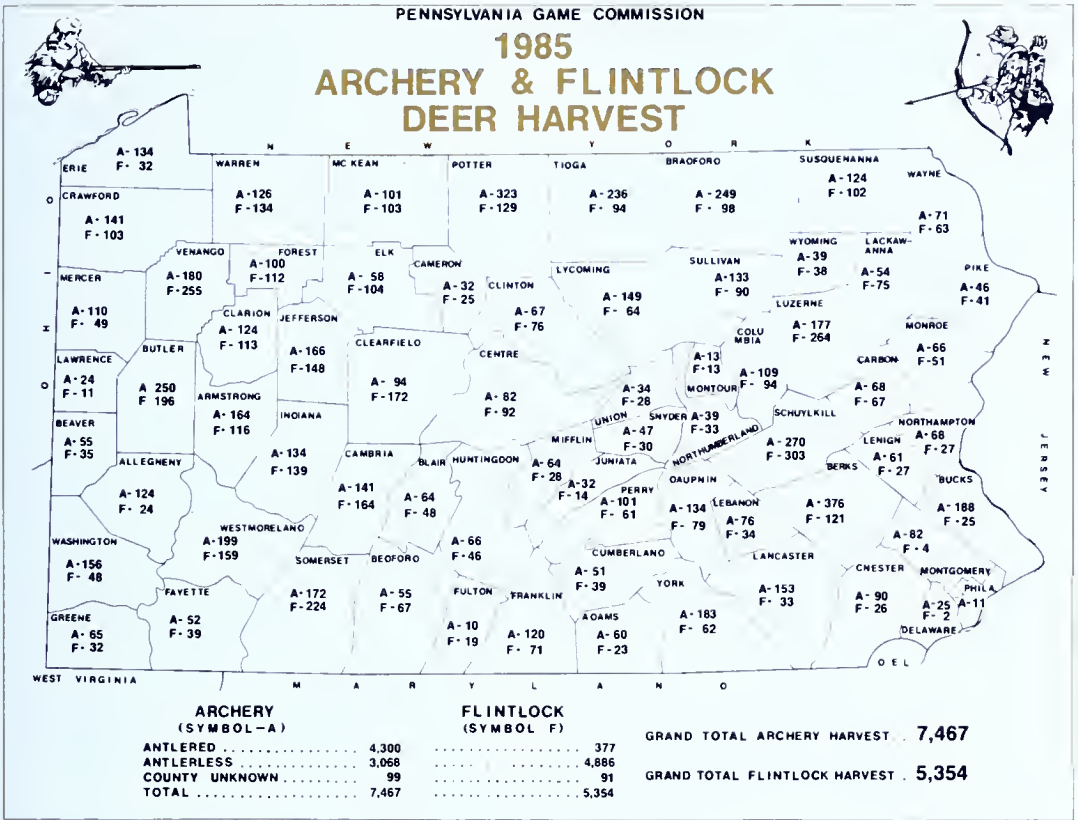
Potter County again lived up to its reputation as the leading deer producer.

## Cover Story

Pennsylvania pheasant hunters have long argued over which dog is best for their sport. All breeds have their champions, but there’s no doubt that the German shorthair is one of the favorites. He’s big, tough and smart enough to handle the long-tailed bird with the same qualities. That’s why Rod Arbogast chose the shorthair as the subject for this month’s cover.



# 1985 ARCHERY & FLINTLOCK DEER HARVEST



A total of 6264 were reported harvested from "God's Country"—3119 bucks and 3145 antlerless deer.

Other top buck counties were Tioga, 2348; Centre, 2342; Bradford, 2258; McKean, 2212; and Luzerne, 2079. In addition to Potter, other leading antlerless counties were Berks, 2793; Tioga, 2700; Bradford, 2583; Somerset, 2484;

and Warren, 2402.

All figures are confirmed counts of report cards filed by successful hunters. The cards are on file in Game Commission Headquarters at Harrisburg, where they are open for inspection by the public. Individuals interested in examining the cards may do so by contacting the Bureau of Administration.

## Books in Brief...

(Order from publisher, not from Game Commission)

**Rabbit Hunting: Stories and Techniques**, edited by John Tomikel, Allegheny Press, Elgin, PA 16413, 128 pp., softbound, \$9.95. A collection of articles and stories about rabbits and rabbit hunting. Most of these originally appeared in GAME NEWS. Good reading about one of our most popular small game animals.

**Consumer's Guide to Handguns**, by Aaron S. Zelman and Lt. Michael L. Neuens, Stackpole Books, Cameron & Kelker Sts., Harrisburg, PA 17105, 208 pp., softbound, \$20.47, delivered. The authors bought 65 handguns over the counter—just like a private citizen would—and then tested them for accuracy, functioning and reliability. Included for each firearm is a description and picture, accuracy results, and good and bad points about the gun. A good objective reference, especially for those in the market for a handgun.

## **GAMEcooking Tips**

### **Authentic Chili**

- 1 pound venison, any cut (although you should have shredded meat for "authentic" chili)
- 1 tsp. oregano
- 1 onion, chopped
- 2 tbsp. oil
- 1 20 oz. can Italian tomatoes, with juice
- 1 16 oz. can red kidney beans
- 1 6 oz. can tomato paste
- 2 tbsp. chili powder
- 1 tsp. cumin
- 1 tsp. fennel
- 1 tsp. red pepper flakes
- Red pepper sauce to taste.

Place meat in a slow cooker. Add water to half cover, and the oregano. Simmer covered on medium setting until meat flakes and falls apart (approximately one hour per pound). Remove meat with slotted spoon, and allow to cool. Reserve broth. Shred meat, discarding fat and bones. Sauté onion in oil until golden. Add all remaining ingredients, including broth, and bring to the simmer. Add meat, and simmer one-half hour. Adjust seasoning to taste. Serves 4.

### **Variations on Authentic Chili**

- 1. Go Mexican. Add a can of ripe olives and a can of green chilies, chopped. Serve with corn chips, and pass the red pepper sauce.
- 2. Serve on a bed of rice for a complete meal.
- 3. Add two cans of mushrooms with juice and some chopped green pepper. (Drain the can of Italian tomatoes if you use the mushroom liquid in this way.)
- 4. Turn into a casserole, and top with provolone, white American, or mozzarella cheese. Drizzle a little corn syrup on top of cheese and bake until cheese melts.
- 5. Turn it into chili soup by adding a quart of beef broth and one more can of tomatoes, or a cup of tomato juice. Be creative—add mushrooms, alphabet noodles, rice—the possibilities are endless. Check the bottom shelf of the refrigerator. Left-over spaghetti cut up is a great addition.

The flavors in chili are always better if allowed to ripen. Make any of these several days prior to serving. Serve with a crusty French bread.

—FROM WILD GAME COOKERY  
BY CAROL VANCE WARY



**THREE GENERATIONS** of a Pennsylvania hunting family are represented in this photo. In 1931, Ralph Fetter, of Johnstown, took the nice 12-point shown at upper right, in Westmoreland Co. In 1946, his son Elmer Fetter, of Osterburg, bagged the 8-point, upper left, in Bedford Co. And in 1974, grandson Dick Fetter, Middletown, got his 8-point, also in Bedford Co. The three trophies bring back many great memories for the Fetter family.



# Game Commission Publications & Items

Quantity	Books	Price
_____	BIRDS OF PENNSYLVANIA, by James & Lillian Wakeley .....	\$ 10.00
_____	THE WINGLESS CROW, by Charles Fergus .....	\$ 10.00
_____	MAMMALS OF PENNSYLVANIA, by J. Kenneth Douth, et al .....	\$ 4.00
_____	GONE FOR THE DAY, by Ned Smith .....	\$ 4.00
_____	PENNSYLVANIA WILD GAME COOKBOOK .....	\$ 4.00
_____	DUCKS AT A DISTANCE .....	\$ 2.00
_____	WOODLANDS AND WILDLIFE .....	\$ 2.00
_____	PENNSYLVANIA TRAPPING MANUAL, by Paul Failor .....	\$ 3.00

## Working Together for Wildlife Collectibles

_____	1986 ART PRINT "Country Lane Kestrel" .....	\$ 125.00
_____	1986 KESTREL PATCH .....	\$ 3.00
_____	1986 KESTREL DECAL .....	\$ 1.00
_____	1985 BOBCAT PATCH .....	\$ 3.00
_____	1985 BOBCAT DECAL .....	\$ 1.00
_____	1984 BLUEBIRD PATCH .....	\$ 3.00
_____	1984 BLUEBIRD DECAL .....	\$ 1.00
_____	1983 OTTER DECAL .....	\$ 1.00
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## Wildlife Management Areas

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_____	MIDDLE CREEK WATERFOWL DECAL .....	\$ 1.00

## Pennsylvania Bird and Mammal Charts

_____	Set 1 (4 charts) 20" x 30" .....	\$ 4.00
_____	Set 2 (4 charts) 20" x 30" .....	\$ 4.00
_____	Set 3 (8 charts) 11" x 14" .....	\$ 4.00
_____	GAME NEWS Cover Prints (4 by Ned Smith) 11" x 14" .....	\$ 4.00
_____	State Symbols Chart 20" x 30" (Deer, Grouse, Hemlock, Laurel) .....	\$ 2.00

## SPORT Items

_____	Bronze SPORT Tie-Tac/Lapel Pin .....	\$ 3.50
_____	SPORT License Plate .....	\$ 4.00
_____	SPORT Patch .....	\$ 1.00

## GAME NEWS

_____	GAME NEWS Binder (Holds 12 Issues) .....	\$ 5.00
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## Waterfowl Management Stamps (Voluntary)

_____	1986 Waterfowl Management Duck Stamp .....	\$ 5.50
_____	1985 Waterfowl Management Duck Stamp .....	\$ 5.50
_____	1984 Waterfowl Management Duck Stamp .....	\$ 5.50

Mail orders along with remittance to Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567. Checks should be made payable to Pennsylvania Game Commission.

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# young artists page

**Cottontail  
Eric Lechner  
Hellertown, PA  
Saucon Valley High School  
Grade 12**



**Grouse  
Chris Hill  
Needmore, PA  
Southern Fulton School  
Grade 7**



# The Winters of Departures . . .

**T**HERE ARE just two ways to live a life: As a seed that has fallen and sprouted close to the tree, or as one that has blown with the wind and rooted miles distant. The soil is as good near to home as it is far away, but the life, in each case, will be different.

A person who grows up, raises a family and grows old in the place where he was born gets a sense of the continuity of things. He still meets some of his schoolmates around town, although today it's his kids and theirs who are filling the once-familiar classrooms. Family gatherings vary little. Mom and Pop, sisters and aunts, uncles and cousins are always there. He hardly notices that the faces are changing, as lines and gray appear, or how big the babies have grown, because he sees them nearly every day.

At times, though, a person who has remained near his childhood home becomes aware of how the years are slipping away and he'd like to brake their rush. Though he can't do that, he finds himself, if not nostalgic, at least appreciative of the moment and the people who fill it. He comes to grips with the fact that they, and he, will not be here forever.

He starts to notice that the old man he hunts with is slowing down. Only yesterday they had different roles. Then he was an uncertain youngster and the older man was the strong adult who

busted through the brush for rabbits, who made every deer drive, who always hiked to the top of the mountain to get his buck. Now the old man's deer stand is near the car, and he's winded after even a short jaunt for grouse. The only thing that hasn't changed is the old man's love of the hunt. It brightens his eye still, and draws the two of them closer together. He hopes it will be many years before the old man and he have their last hunt together, but each trip they make today takes on more meaning.

## New Faces

Through the years, there have been new faces in the family crowd, brand-new and tiny. He's been dad or "uncle," in reality or friendship, and watched the childhood through. Then one day it's he and the child in the woods. Only the kid is much taller now, perhaps even taller than he, with a little fuzz on the chin and square-set shoulders, the promise of the man to come. Or perhaps it's a woman-child, dressed in orange with a deer rifle, who wears mascara but still giggles like the baby he once knew. Though he was anxious for today, this first hunt, he regrets that the time has gone so quickly.

He sees himself, as he used to be, in this almost-adult. The role he has as hunter-coach is both new to him and old as time. The sport seems fresh again, seen through younger eyes. There's pleasure, too, he finds, in teaching the woods skills he's learned, pointing out a buck rub, a turkey scratch, a squirrel's nest. He relives the frustration he felt as a new hunter when the kid misses his first pheasant, and sees his own triumph return when the youngster downs his first deer. In hunting, the two of them find common ground as adults, and he feels time moving for him as it did for the old man before him.

## Another View . . .

by Linda Steiner



**THE LAST HUNT** with a friend is an extended goodbye. Both know that this good time must last far beyond the day, so it takes on a significance it doesn't really have.

Many lives today must root and grow far from the family and friends of their youth. Nothing can replace the security of the familial circle to which a person is born, but he can develop a new family of friends wherever he goes. And with each packing and unpacking of material belongings comes a winding down of old friendships and the discovery of new ones.

A person doesn't move when the truck is loaded. He's already gone as soon as he knows he's leaving. Every day after that seems different, because he knows his time in that place is drawing to a close. Friends are the hardest to leave behind. Though they promise they'll write, all know the friendship can never be the same again. Of course, there'll be letters, occasional visits, maybe a hunting trip planned, but these are anachronisms, enjoyable but out of joint with what is actually happening in their lives. The relationship is

never the same as when they shared of their time and themselves on an almost daily basis.

The last hunt with a friend is an extended good-bye. Both know that this good time must last far beyond the day, so it takes on a significance it really doesn't have. "Hey, good buddy, that was a fine shot. Here's your pheasant. Say, remember when we kicked two ringnecks out of that briar clump and we missed both of them? That was something!" Memories hover round, and the coming departure's mentioned only at day's end. "No, you keep the pheasants. I can't take them with me when I move." There's a strained silence then and no good way to patch it up.

### Rare Treat

A true friend is so very hard to find that it's a rare treat to make a new one, especially when it's the first after a relocation. Nothing makes a friend out of a stranger faster than sharing a hunting trip. And nothing weeds out acquaintances, who should be strangers, as quickly, either. But when the personalities do click, it's a wonderful thing. Both the laughter and the quiet moments come easily. Words tumble over each other as both find they share the same interests, have the same outlook, differ in opinion just enough to add some spice.

And when the day's hunt is done, one of them says, "We had a good time, didn't we? Let's do it again. How about next Saturday?"

"Sounds great to me. If you're not busy Wednesday, come on over for supper. We'll have these rabbits we shot today. And later we can load some shells and swap hunting lies."

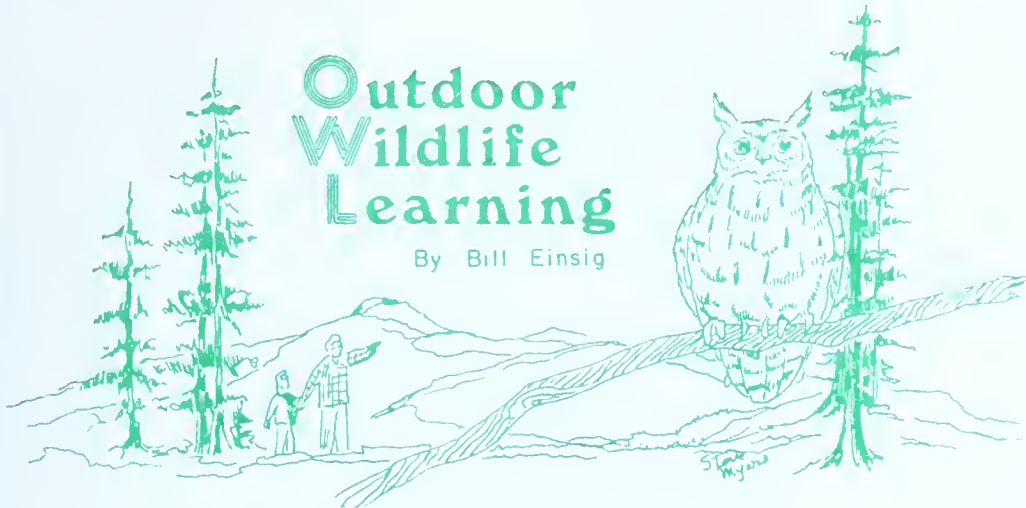
Suddenly the new-found friend has made it feel like home again.

In the ways a life can be lived, there are many comings and goings, the winters of departures, the springs of new beginnings. Being a hunter allows us to discover and remember more about those we care for, while we share the sport we love.



# Outdoor Wildlife Learning

By Bill Einsig



## The Year of the Forest

### Recreation Unlimited

#### Episode 1

**C**HUCK stood in front of his garage as I pulled into his driveway. He was adjusting the straps on a backpack borrowed for our weekend trip into the Hammersley Wild Area of the Susquehannock State Forest in Potter County.

The backpack had a quick-release buckle that Chuck couldn't wait to demonstrate. He flipped the catch, pushed his shoulders back and the pack slid smoothly to the ground. Elapsed time, maybe two seconds.

"That's great," I said. "But do you think you'll need it this weekend?"

"Who knows?" Chuck laughed. "Maybe we'll spook a bear and I'll have to drop this thing in a hurry!"

We didn't see a bear that weekend in spring gobbler season, but I did see my first bear claw marks and lots of turkey scratching as we hiked into the Hammersley valley. As usual, we took our time, half hiking, half hunting, but mostly just enjoying the trip.

Finally, our camp was in sight. Just one small stream to cross and we could unload our gear and become more serious about scouting for turkeys.

Chuck led the way across the few exposed rocks that formed an irregular path through the shallow water. Suddenly, one foot slipped and I could only watch helplessly as he headed toward the cold water. Unloaded gun held high in the air, he twisted around to land squarely on his pack and sleeping bag. I grabbed his gun and held out a hand to pull him up.

But Chuck had other ideas. He fumbled with the quick-release belt on his pack. It didn't open. All sorts of unprintable comments came boiling out of this close friend lying in the middle of a stream and determined to open the "quick-release buckle" on his backpack. Some memories burn themselves in so deeply you never forget them.

#### Episode 2

About thirty years ago, I was a Tenderfoot Scout heading out on my first organized hike. I had slept outside before with neighborhood buddies, but this hike was my first with the scout troop and my first adventure into the wild Michaux State Forest of Franklin and Cumberland counties.

Our plan was to hike from Caledonia State Park to Pine Grove Furnace State Park—a distance of less than twenty miles. I felt we were true adventurers and that my survival rested on doing everything just as *Boys Life* said scouts were supposed to do them.

I learned quite a bit that weekend. I

had my first meal of bouillon broth, my first case of blistered feet, and finally understood why it was so important to carry a light pack. I'd give anything to remember all the equipment I had jammed into my pack for that expedition. I've always believed in the admonition, "Be Prepared"!

### Episode 3

My older brother was fireman in the U.S. Navy. He also loved the outdoors and probably spent more time there before he was twenty than I have in my whole life. When he was stationed nearby, he often brought friends home with him on weekend passes. I got used to going to bed alone only to awaken later to find one or two sailors had crowded into bed with me.

On one of those weekends, my brother and a sailor friend, with me tagging along, drove to Hyner View Lookout in the beautiful Sproul State Forest, Clinton County. In those days, the area was not developed as it is today, and we slept that night near the stone wall of the lookout itself.

At some time during the night we were awakened by cool rain hitting our faces. As the thunderstorm closed in on us, we piled into the car. It's not very comfortable trying to sleep in the front seat of a car, and I remember I didn't sleep much more that night.

It was, however, that night that I saw fox fire for the first time. I remember an eerie glow of greenish-yellow light staring at me from the damp dark forest. The next morning I looked for the source of the glow and found only a damp decaying stump. Years later, I learned fox fire is a phosphorescent glow of a fungus that decays dead wood.

### Episode 4

Dave let out a yell as his fishing rod bent sharply. He had hooked something big, something much larger than the small bluegills which he had been

catching all morning long.

Dave was one of my senior students in an ecology class studying the bluegill population in the lake at Gifford Pinchot State Park, York County. Our theory was that Pinchot bluegills were stunted in growth, and we were catching, weighing and aging as many as we could in order to arrive at an age/weight ratio to compare with similar data from other lakes.

We had been fishing most of that school day when Dave hooked this lunker. He battled it for several minutes, slipping occasionally on the wet rock, just a few feet from shore.

Dave was so excited that his yells rebounded across the flat water while the rest of us could only watch and laugh. Finally, a large carp broke the water right at Dave's feet, so startling him that he sprawled over backwards.

With a quick shake, the carp threw off the hook and slid into deeper water. Dave couldn't believe it. His monster fish had got away and, worse yet, not one other classmate, nor the teacher, would admit to having seen the mystery fish at all. To this day, Dave tells a story of a giant carp, and the rest of us remember only the time he snagged his line on a sunken stump that nearly pulled him in.

Recreation means different things to different people. Memorable outdoor trips are measured more by good times with good friends than by full game bags, fat creels or miles covered. In the final analysis, simple things make the efforts worthwhile.

We're fortunate in Pennsylvania to have so much forest land to enjoy. The Bureau of Forestry alone manages over 2 million acres of forest land with 2500 miles of forest roads and almost 900 miles of hiking trails. State parks offer cabin rentals and boating facilities as well as swimming and picnicking areas.

No matter what your outdoor interests are, Pennsylvania forests can turn them into good memories.



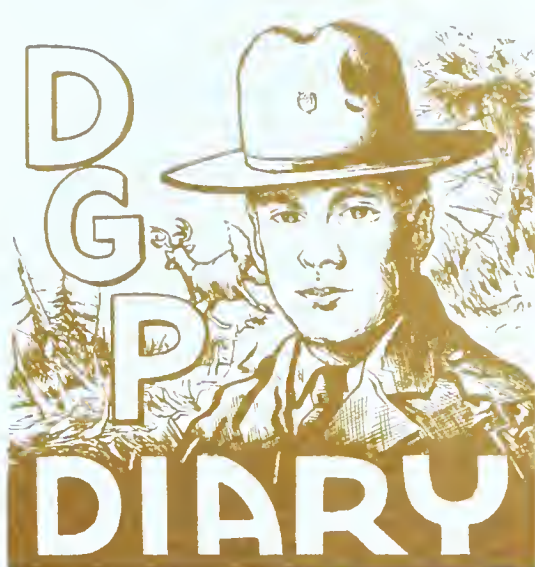
**J**UNE is the beginning of summer and start of the so-called "off season" for game protectors. Although less time is devoted to law enforcement in this season than in others, the unending nuisance wildlife calls and stream of special permit applications that flows across my desk keep me busy.

June is a great time to be outdoors with the family. It's an ideal time to teach children about the proper use of our natural resources. Show them that rubbish shouldn't be left behind at picnic sites, that fishing tackle shouldn't be strewn along creek banks, that camp fires should be closely watched, and that young animals can be observed, but not disturbed or captured. If, in 30 years, we find our children's attitudes regarding the outdoors aren't better than ours, we will have only ourselves to blame. We are their examples.

*June 1*—Reported this morning to our annual spring hunter education course, sponsored by the West Chester Fish and Game Association. Volunteer instructor Tom Yarnall met me in the parking lot and informed me that the class had been cancelled due to lack of enrollment. Come fall, this same class will be filled to capacity and students will have to be turned away. I wish more youngsters would take advantage of our spring courses. It would definitely remove some of the pressure our instructors typically experience in September and October, and many students would not be inconvenienced.

*June 3*—Spent the morning in the office preparing monthly reports and returning phone calls. The evening was spent at home where I held a training meeting for my deputies.

*June 5*—After investigating a muskrat damage complaint in Marshalton, I responded to a call from the West Chester area concerning an allegedly abandoned fawn. The caller had observed a doe and fawn crossing a rural road. When he stopped to watch the doe ran away. Together, we took the fawn back to the exact spot from where it had been taken and placed it in some concealing brush. Before the day was out, my caller phoned to say that he had observed the doe return, locate the young whitetail, and lead it away. Wild animals no more want to abandon their youngsters than human parents do. If



**By Keith Sanford**

**District Game Protector  
Chester County**

you encounter young animals leave them alone. More often than not the mother is close by, just waiting for you to leave. Human interference disrupts one of nature's families. It is also a violation of the Game Law.

*June 6*—Met this morning with Charles Trout, one of my volunteer hunter education instructors from the New London area. After dropping off supplies for his fall hunter education course, Charlie and I went over to Oxford to see the new grounds of the Outdoor Sportsmen and Farmers' Club. The club is renovating the property they received from another association. When the work is completed, the facility should be an excellent place to hold hunter education classes. In the afternoon I disposed of roadkilled deer from West Bradford and Pennsbury townships.

*June 7*—Spent the morning in the office. In the evening, patrolled along the Octoraro creek in Lower Oxford Township with Deputy Horace Steffy.

*June 10*—In the morning, prepared an article for my bi-weekly newspaper column. Disposed of roadkilled deer in the West Chester and Chadds Ford areas in the afternoon.

*June 11*—I patrolled in West Fallowfield,

## First-Time Hunters and Trappers

All first-time hunters and trappers are reminded they must take a Hunter Education course before they can buy a hunting license or a furtaker's license in Pennsylvania. Each year there is a rush of students trying to get into a course just before the season opens. It is impossible to take care of some of these, so they are disappointed. If you want to hunt or trap this year, it is advisable to take this course immediately. Check the sporting pages of your newspaper, your area sportsmen's club, or with the nearest Game Commission officer for dates and locations of courses.

*Do it now!*

Highland, Upper Oxford, New London, and Penn townships. In the evening I attended the monthly meeting of the Atglen Sportsmen's Club.

*June 12*—Spent the day in the office reviewing special permit annual reports and renewal applications. I administer close to sixty special permits. These cover a variety of activities involving wildlife fur dealers, taxidermists, falconers, regulated shooting ground operators, and game propagators. These are among the groups involved with wildlife who must obtain a Game Commission permit before operating legally within the Commonwealth. All permits expire at the end of June, and many require an annual report of the previous year's activities. Copies of the reports and renewals are forwarded to our Regional Office in Reading where they are reviewed and then entered on computer for easy reference.

*June 13*—Met this morning with agent Kelvin Smith of the U.S. Fish and Wildlife Service. I had received information that a store in the West Chester area was selling mounted specimens of several protected species of wildlife and we wanted to investigate. The shop owner told us the mounts he had sold and those still on display had been imported from Europe. Although the specimens had cleared U.S. Customs, we didn't know whether or not they had been legally taken in their country of origin. The

shop owner was requested to take all of the unsold mounts off of the shelf until the matter could be thoroughly investigated by federal agents.

*June 14*—Again, spent this morning in the office reviewing special permits. In the afternoon and early evening I patrolled in Highland, Londonderry, West Fallowfield, Upper Oxford, West Marlboro, and Newlin townships.

*June 17*—After spending the morning in the office preparing another article for my newspaper column, I went to a local range for a couple of hours of practice with my service revolver. Like other law enforcement officers, game protectors are required to carry revolvers for defensive purposes and we must maintain a certain level of shooting proficiency.

I received a call in the afternoon from a family outside of Kennett Square. In the process of renovating their house they discovered a nest of young kestrels under one of the eaves. Since that portion of the home was to be torn out, I picked up the young birds and delivered them to the Sanborns in West Chester for rearing.

*June 18*—Received a call this afternoon from a farmer in the Nottingham area. While out working his fields, he saw a dog chase and kill a fawn. I collected all the details and then left, hoping we could locate the dog and its owner.

*June 19*—Early morning found me patrolling in East Nottingham and Elk townships. I was trying to find the dog which had pulled down the fawn yesterday. Deputy Game Protector Horace Steffy, Oxford, agreed to look for the dog in the evening.

In the afternoon I went to our Regional Office in Reading to attend a meeting of the region's firearms instructors. We get together once a year to discuss new training techniques and to schedule firearms training for the region's nearly 200 deputy game protectors.

*June 21*—Charlie Strouphar and members of the Food and Cover Corps from the Middle Creek Wildlife Management area in Lebanon and Lancaster counties visited me. These individuals have been designated as the agency's nuisance goose trapping crew for southeastern Pennsylvania. Together, with representatives from the Georgia Department of Natural Re-



sources, we rounded up and crated 87 nuisance geese from Longwood Gardens and the Crosslands Retirement Village outside of Kennett Square. The birds, along with honkers captured in several other southeastern counties, will be released in Georgia in an attempt to reestablish breeding flocks in that state. The trap and transfer of nuisance geese helps relieve the complaints that arise as a result of conflicts between humans and geese and also provides a potential for increased outdoor recreation in those areas where the birds are released.

*June 25*—I was at the Nottingham County Park this afternoon to give a program on Pennsylvania wildlife to approximately 50 youngsters who were attending the Octoraro Cub Scout Day Camp.

In the evening Deputy Steffy and I again met with the witness in our dog case. Afterwards we patrolled in Elk Township, still hopeful of finding the dog which had killed the deer.

*June 27*—This morning I decided to do some patrolling on foot. The Goat Hill Serpentine Barrens in West Nottingham Township is a fairly popular hunting area. Due to the size of the tract and its dense understory of greenbriar, it's easy to get turned around and disoriented if you don't know the lay of the land. My purpose for patrolling today was to better familiarize myself with the area and its wildlife.

In the evening, I started instructing a short course on firearms safety for a group of Boy Scouts who were working on their shooting merit badges.

*June 28*—Received information today through Deputy Bill Buckley concerning an individual in the West Chester area who had been illegally selling live raccoons. Deputy Jim Valentino and I talked with one of the persons who had purchased a rac-



**THE AMERICAN KESTREL** is the 1986 feature in the Game Commission's **Working Together for Wildlife** program. Funds from this program are used to conduct research and management projects for nongame species. An embroidered patch is \$3, the decal \$1, delivered from the Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567.

coon. From there we went to the seller's home, only to find him out for the evening. I left word that I wanted to speak with him.

*June 29*—This evening Deputy Jim Valentino and I were back in West Chester to wrap up the investigation we started last night. In talking with our suspect, he admitted that he had taken the raccoons out of the wild and was selling them. We charged him with possessing four raccoons taken in closed season and with two counts of selling game without a game propagating permit. In addition to the monetary fines, the defendant lost his hunting and trapping privileges for two years.

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## Bowhunters Festival

A Bowhunters Festival is being sponsored by the Northampton County Federation of Sportsmen's Clubs, August 9 and 10 (rain date, August 16 and 17), at the Bear Swamp County Park, Johnsonville. It will run from 7 a.m. to 6 p.m. Saturday, and from 7 a.m. to 4 p.m. Sunday. Features include a three-loop, 58 3-D target tournament; seminars on archery shooting and hunting techniques; and demonstrations by industry representatives. A \$1 entrance fee will be charged those over 12 years of age, and an additional fee will be charged tournament contestants.

IN FEBRUARY, tree leaves are far from my thoughts, but by March the skunk cabbage pokes up green along the creek and the willows take on a bright tint and together they get me itching to see the forest canopy spread. Late in April the buds are swollen on their twigs, and in May they all burst forth, unfolding in pale green or pastel pink, expanding, stiffening, and presenting their shapes, which are many and curious and among the most beautiful forms in the woods.

I have often wondered why leaves come in so many different shapes. After all, the purpose of all leaves is the same: to provide a meeting place for water and air, and to use sunlight to manufacture food from these ingredients. (The process, photosynthesis, yields a byproduct, oxygen, which lets life on this planet continue to exist.) Long ago, nature should have settled on a simple, standard form—like the black gum's leaf, for instance, oblong, with nary a nick or a tooth or a lobe to complicate its margin. That's not the case. Even in my small patch of woods I find all kinds of leaves, round ones and branching and narrow and flared, leaves with notched or saw-toothed edges, leaves like hearts and mittens and stars and the feet of geese—did you ever take a close look at a leaf from a striped maple, that small scrubby tree with the striped green bark that buck deer so love to scuff up with their antlers? The leaf is shaped like the outline of a big gander's foot. It has three points, like toes, with webbing in between.

### **Favorite Leaf**

If I have a favorite leaf, it's the one on the tuliptree. This leaf has a rounded base, four lobes, and a notch at its tip. A clean and simple design with enough flair to gladden the eye, it makes a beautiful repeating pattern in a quilt. The leaf turns yellow in the fall, drops off, and glides down in pendulum arcs.

I also like the shape of the white oak's leaf. Its lobes are rounded, unlike



the red oak's, which are angular and bristle-tipped. A white oak leaf looks like the part of a topographic map you would get if you snipped along a single contour line surrounding a many-branched mountain stream.

A leaf with a strangely variable shape belongs to the sassafras. Sassafras leaves come in four different styles, often on the same tree. There is a plain egg-shaped leaf with a blunt tip. There is a leaf with a thumb that sticks out on the right—just like a mitten. There's a mate to the mitten, with the thumb on the left. And there is a double-lobed leaf with a thumb on each side.

Aspen's leaf is a restless thing whose shape keeps it twisting and fluttering all day. The blade of the leaf—the main sun-catching part—is shaped like a heart, minus the deep notch. The leafstalk—the part of the leaf that attaches it to the stem—is longer than the blade, flattened and thin like a ribbon. The stalk acts as a pivot, presenting one side of the leaf to the wind, then the other. Unless the day is dead calm, an aspen's leaves will be quaking, fluttering, whispering throughout the tree.

For a long time people have wondered about this incessant fluttering. Why? What good does it do a tree to keep its leaves in near-constant motion? I have read that this motion may help the leaf get rid of moisture, in much the same way that a handkerchief waving in the wind dries faster than



one hanging in still air. The aspen is a poplar, a group of trees whose leaves all quake to some extent. In general, poplars thrive in damp soils near lakes and streams. They grow fast, which is an advantage because they can intercept more light than slower-growing trees, and they need to process a lot of water to shoot up so hurriedly. The quaking leaves are supposed to keep the system in high gear.

In the sixteenth century, specialists in herbal medicine asserted that botanical shapes signaled medicinal properties: A heart-shaped leaf was a marvelous remedy for swooning, while a leaf whose shape suggested a bruise was considered good for treating bruises. I appreciate that leaves have a therapeutic effect. If the day threatens to become too complex, I am likely to take a walk and dose myself with a thorough examination of them.

Down in the meadow I planted some sweet gums. They should be small trees by now, but the deer have browsed them so assiduously that they look more like shrubs. Still, they have beautiful leaves, green stars with five and sometimes seven long, tapering points.

I found a sapling the other day, a cucumbertree, a kin to the tuliptree. The leaf of a cucumbertree is broad and long, with a smooth margin, tapering evenly to each end, like a big green boat seen from above. Mature cucumbertrees have large leaves, often

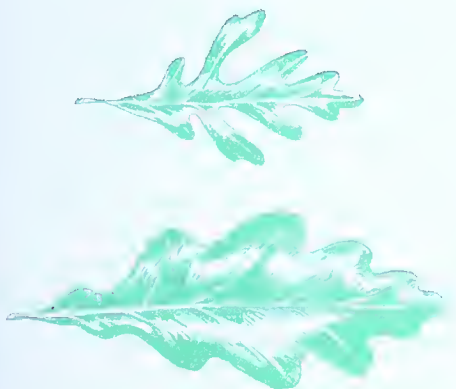
eight or ten inches long, and this sapling—about six feet tall—had enormous eleven-inch leaves, leaves you could have wrapped a sandwich in. I've noticed that seedlings and saplings often have extra-large leaves, as if they are gambling to get big fast, straining to catch any sunbeams that make it down to the forest floor.

In many trees—the oaks and maples, for instance—leaves from the top of the tree and from the exposed south side may be shaped differently from leaves in the interior of the crown and along the tree's north-facing branches. Botanists call these "sun leaves" and "shade leaves," respectively. Sun leaves are smaller, thicker, hairier, than their shaded counterparts, and the spaces between their lobes cut deeper. It turns out that sun leaves are better at shedding excess heat, which can disrupt photosynthesis.

### Holes Cool

A botanist from Duke University observed that unlobed leaves, such as those of the dogwood, often droop during the hottest hours of the day, while deeply lobed leaves—the sun leaves of a white oak—do not. This same fellow suggested that holes chewed into leaves by insects may also help the leaves keep cool as summer progresses. Up on the hill where we pick huckleberries there grows a stand of chestnut oaks, also known as rock oaks. The leaf is oval, longer than it is broad, with a neatly scalloped edge. By the time the various species of huckleberries are done ripening, and the various species of leaf-mining insects are done growing, it looks like someone has opened up with a shotgun from beneath the shading oaks: all those leaves, and not a single one, it seems, without a hole.

Small chestnut trees (not chestnut *oak* trees, but American chestnut trees) are scattered throughout the woods; their leaves look like tapering lance heads, short-stemmed and with prominent veins, the leaf margins equipped with scores of forward-curving teeth. The chestnut's leaves look a lot like the



WHITE OAK LEAVES

leaves of the beech, a first cousin, except that a beech leaf seems thinner, almost translucent, in comparison.

This matter of toothed versus non-toothed leaves has provoked considerable thought. Back in 1916 two Harvard botanists looked through all the tree books they could find and determined that, among woody plants, leaves and leaflets with toothy margins grow more commonly in well-watered regions, while leaves with non-toothed margins predominate in places where water is scarce. They noted that toothed leaves are often paper-thin and have highly developed vein systems, making them good at giving off water vapor. Leaves with entire margins, on the other hand, tend to be thicker, stiffer, leatherier: oriented toward saving water rather than releasing it.

Scientists have also tried to understand why some leaves have a compound shape (composed of many small leaflets) while others do not. Consider the sumac, a shrubby colonizer of old fields and road edges. Its compound leaf has a long central stalk called a rachis, and paired leaflets sprouting out along it at intervals. The leaflets, long curving daggers with toothed edges, turn flame-orange in early autumn, and the rachis—carrying the leaflets with it—tumbles to the ground soon after first frost. Many other trees also have compound leaves: hickories, locusts, walnuts, ash.

### Percentage Varies

Botanists have noticed that the percentage of compound-leaved trees varies from place to place. In New England they are 13 percent of the total species; in Arizona's Sonoran Desert, 32 percent. By dropping hundreds of rachises rather than thousands of leaves, a tree may minimize water loss: It has fewer breaches in its bark to heal over, a boon during dry spells or times when water is locked away in ice. Most trees that have compound leaves do not grow well in the shade. Scientists believe it takes less resources to grow a bunch of skinny rachises than a net-





work of thick woody branches. With rachises supporting many leaflets, a tree can sink more energy into vertical growth, quickly claiming its share of the sun.

Over the years, people have speculated on other purposes for differently shaped leaves. Those little spikes that stick out from the tips of red oak and chestnut and beech leaves? Maybe they make the leaves less palatable to browsing animals. Or maybe they act as “drip-tips,” draining the leaf of rain-water and dew so that fungi can’t grow there, can’t cloud the surface and short-circuit the photosynthesis happening within. That distinctive notched tip on the tuliptree’s leaf? The shape may draw insects from far away to pollinate the tree’s tulip-like flower. (The oak, by contrast, has no such need: Its pollen carries about on the wind.)

Scientists may guess and tinker, but they’ll not likely solve the mystery of leaf shapes soon. About all we can say for certain is that trees did not develop

### The Wingless Crow

*The Wingless Crow* is a collection of 33 of Chuck Fergus’s “Thorn-apples” columns, assembled into a 188-page hardcover book. Reviewing it, *Gray’s Sporting Journal* wrote: “One of the best bunches of outdoor essays that has crossed my desk . . . full of the feel of hunting . . . In addition to having a good text, *The Wingless Crow* is a handsome object, printed on decent paper, with a fine stark woodcut design of flying crows on the cover.”

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their distinctive leaf profiles just so we could tell them apart. I doubt that you could find two leaves shaped exactly alike on the same limb, let alone on the same tree. They are serendipitous forms, and the more beautiful for it.

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**RECURVE BOWS**, which have been largely replaced by compounds for hunting and for many target contests, are regulation for world FITA tournaments.

FITA traditionalists . . .

## COLOR THEM WHITE

By Keith C. Schuyler

**P**ERHAPS it was nostalgia that took us to Lancaster for the fourth annual outdoor tournament of FITA Archers of Pennsylvania. (The fifth such tourney will be held this August 30-31.) Although merely a working spectator for the event, I wore my whites in deference to the mandatory "uniform" of these traditionalists who keep alive and well a segment of archery that fits between today's vaunted compound and the ancient longbow.

Those who wonder how this archery organization can attract active participants from the established Pennsylvania State Archery Association and the National Field Archery Association—which recently became reestablished in the state—may be surprised to learn that, at last count, some 350 Pennsylvania archers in the commonwealth and 150 from surrounding

states have already joined the state FITA group.

It all began in September 1981, when an organizational meeting of about 50 FITA archers was held in conjunction with the 50th anniversary tournament of the Lancaster Archery Club. They wanted to establish a state organization structured upon the rules and regulations of the Federation Internationale de Tir a l'Arc, the world body of archery competitors. Internationally renowned Bud Fowkes was named chairman of a committee of noteworthy figures: Darwin Kyle, Julia Bowers, "Speed" McCullough, Linda Myers, Thomas Stevenson, Sr., Del Gilbert, A. Robert Kaufhold and Ed Williams. The committee wanted to formally organize and become associated with the Pennsylvania State Archery Association and then represent



the state in National Archery Association matters.

When the PSAA expressed no interest in such an arrangement, Fowkes personally registered the new organization and paid the dues to become affiliated with NAA. Their first tournament was set for 1982.

Those in the PSAA apparently were disenchanted with the use of recurve bows in competition. From 1976 to 1981, the number of archers who competed on the "A" line in PSAA state target competition dropped from 81 to 16. Many blamed this drop on the growing interest in the compound bow.

Proof that there still is substantial sentiment for the "old" recurve has been shown by the rapid growth and participation in the activities of this new organization, officially known as FITA Archers of Pennsylvania.

There have been attempts by European archers to make the compound bow legal in FITA tournaments, but strong tradition has so far prevented inroads by the compound or its sister, the cam bow. Officially, in any affiliated FITA organizations, the bow may be of any type, "provided it subscribes to the accepted principle and meaning of the word Bow as used in Target Archery: e.g. an instrument consisting of a handle (grip), riser, and two flexible limbs each ending in a tip with a string nock. The Bow is braced for use by a single bowstring attached directly between the two string nocks only, and in operation is held in one hand by its handle (grip) while the fingers of the other hand draw, hold back and release the string."

### No Compounds

There you have it. No way can a compound or a cam bow slip within this definition. Any longbow, however, might meet the requirements, even on those where the "riser" section is no more than a fast tapering thickness immediately above and below the grip. This possibility becomes irrelevant, however, as longbow shooters are no more likely to be found on the winners'



**A. ROBERT KAUFHOLD, left, shot his way to top score in the fifth annual meet, held at Lancaster County Park. A strong breeze caused difficulty at 90 meters during the men's competition, but settled down for the shorter distances.**

dais at a FITA shoot than recurve shooters are in matches where compounds are allowed.

Nevertheless, it is still a matter of pride among manufacturers to have their recurve bows used by top competitors on the FITA line. It should be pointed out that FITA rules are in force for Olympic competition—the ultimate height to which any amateur archer might aspire. In addition, many bow hunters still cling to, or have gone back to, the recurve or the longbow, even though both have all but disappeared from the target line except in FITA competition.

Why many target archers still choose the recurve for competition may be incomprehensible to those wedded to the compound. Many of those who assembled at Lancaster last Labor Day weekend would themselves have difficulty explaining why they compete against others of like bent.

Most of them will never qualify for an Olympic berth. For example, five competitors were confined to wheelchairs. The best of these, Charlie Focht, placed tenth among the 26 adult male competitors. These five

didn't get any breaks because of their handicaps. Although there are tournaments for wheelchair jockeys, these dedicated archers thrive on pitting their skills against the best.

A clue to the inspiration for such devotion may be taken from The United Bowmen of Philadelphia, a group which will mark its 158th anniversary on September 3. Some of their traditions have succumbed to today's faster pace, but the late Proctor Wetherill kept them largely intact during his long tenure. They still cling to the United Bowman Round of 84 arrows at 80 yards, "the contest to continue until only one archer has one or more arrows left, when he is declared the winner."

Clayton B. Shenk, an archery institution himself and honorary field captain of the tournament, was making his umpteenth tour of the shooting line when my wife and I arrived at Lancas-

**THOUGH THEY had to do their shooting from wheelchairs, these tough competitors felt that was no handicap. Charles Focht, foreground, finished 10th in a field of 26 adult men.**

## STRAIGHT FROM THE BOWSTRING

ter County Park. A strong breeze caused some difficulty at the 90 meter distance for men, but later settled down when dark clouds moved in as the contest moved up to 70 meters.

Only the occasional clank of horse-drawn machinery being used by nearby Amish farmers vied with the tap of arrows as scores began to indicate winners. Bud Fowkes and Lura Wilson, co-directors of shooting, quietly kept the tournament moving. Excellent archers in their own right, they have given back to the sport many times what it has offered them. Robert Kaufhold was serving as tournament director. His co-director, Darwin Kyle, who set up the Lancaster shoot, was back in Bhutan, coaching that tiny country's archery team for world competition in Seoul, Korea. He also took time to lecture on the subject in Pakistan, India, Thailand, Hong Kong and Taipei before going on to the world tournament.

An excellent chicken barbeque, arranged by the Shenks, gave archers an opportunity to relax on Saturday evening before tackling the targets on Sunday morning.

### Final Tally

When the final tally was in for Pennsylvania shooters, A. Robert Kaufhold was tops for the men, over second place finisher Rod Hoover, with a strong 1219.

Among intermediate men, Michael Kyle won handily with 1141, while his brother Buddy topped junior boys with 1269. Joshua Bernstein was first for cadet boys with 851, and Heather Preston was winner for cadet girls with 912.

Melanie Skillman's 1231 was well up





in front for adult women, followed by Debra Metzgar at 1195. Angela Nusz was first for intermediate women at 1170. Although 42 out-of-state archers competed, none bested Pennsylvania shooters.

Down the line, Jim Thomas set a new but unofficial world record in the crossbow division with a 1709—it wasn't official because the tournament was not sanctioned by the World Crossbow Association. His score, however, established a new state record. He will have a chance at the world title when the tournament is held in the United States in August.

Whatever creates the dedication of competitors in this demanding segment of archery, the reward of just being a part of it seems enough to keep many coming back. All of archery is and will continue to be better because of them.

Color them white.



**BUD FOWKES AND LURA WILSON**, well known in national archery circles for their work and dedication over many years, were co-directors of the fourth annual FITA Archers of Pennsylvania two-day tournament.

## *Books in Brief...*

(Order from publisher, not from Game Commission)

**Eastern Wildlife Coloring Book**, by Linda Steiner, Allegheny Press, Elgin, PA 16413, 64 pp., softbound, \$2.95 delivered. Thirty species of wildlife—animals, fish and insects—are featured in full-page line drawings which youngsters will delight in coloring. In addition, the copy on facing pages gives a great deal of information about these creatures, in language easy for youngsters to understand. All by the GAME NEWS columnist who writes "Another View . . ." each month. Great for kids.

**Winchester's 30-30, Model 94, The Rifle America Loves**, by Sam Fadala, Stackpole Books, Cameron & Kelker Streets, Harrisburg, PA 17105, 224 pp., \$24.95 plus sales tax and postage. There's no doubt this is the most popular sporting outfit ever offered deer hunters. Though not a long-range rig, some 5 million owners have found it does the job, in the East's cutovers and as a saddle gun in the West. Fadala has had a lifelong love affair with the 94—even had a custom version built—and has written a fully satisfying account of its qualities. The historical stuff is nicely blended into the day-to-day observations, and there are lots of photos. If you own or admire the 94, you'll like this book.

**North American Big Game Animals**, by Byron Dalrymple and Erwin Bauer, Stackpole Books, Cameron and Kelker Streets, Harrisburg, PA 17105, 258 pp., \$29.95 plus sales tax and postage. The lives of whitetails, mule deer, elk, moose, caribou, pronghorns, wild sheep, mountain goat, mountain lion, grizzly and black bears are discussed here, in easily understood language. Dalrymple, the dean of outdoor writers, does not make the mistake of writing for wildlife biologists when he knows his readers are hunters and outdoorsmen. And of course Bauer's photos, both color and black and white, are excellent. A lot of useful and readable information.



**CHUCK HUNT** brought **Jim Smith**, gunsmith **Jim Peightal**, and Remington product supervisor **Dick Dietz** together in "Don Lewis country" in western Pennsylvania.

## HOW TIMES HAVE CHANGED!

**By Don Lewis**

**Photos by Helen Lewis**

**"WE GOT TWO** out of five," was the triumphant remark of my helper. "If everything works in our favor, we might even do better than fifty percent and eventually get enough loaded for our woodchuck hunt this evening."

"Don't get too optimistic," I warned. "The only thing we haven't broken or cracked so far is the vise."

I probably don't have to tell you my friend and I were wildcatting 30-30 cases to 224 caliber with vise-type case-forming dies. This was before wildcat forming dies were available at the local sporting goods store. The gunsmith that built the wildcat my friend had acquired at a bargain price had also made the swaging dies. I won't say the

dies were improperly made, but after two hours of hot work resulted in only a dozen or so swaged cases, I could easily see why the rifle had been offered with a low price tag.

I thought about that incident a few weeks back while swaging 22 Cheetah cases from Remington B-R brass. I was going through a four-step forming process using RCBS swaging dies in the RCBS Big Max heavy duty reloading press. After lightly lubing the new B-R cases, it took almost no effort on my part to reduce the neck diameter and push the shoulder back. The same was true when I swaged 30-06 cases to the 228 Ackley Magnum and 30-30 cases to the 219 Donaldson Wasp. There was little resistance felt in the handle of



this massive metallic reloading press.

I'm sure those wildcatters of yesteryear became proficient with vise-type dies, but high case loss was a price that had to be paid. Since it was almost impossible to run the case into the die in one smooth motion, the shoulder and neck would push back into the case. Sometimes, it looked like a miniature accordion. A case that didn't hold its form was difficult to remove and the force required to push the case free from the die stretched and weakened it considerably. Case life could be no longer than a few firings.

I don't want to imply that all early wildcat vise-type dies caused problems. Some wildcatters had very sophisticated outfits that, except for speed, probably gave results equivalent to those of the modern swaging press. But it's safe to say the vast majority of early varmint hunters using wildcatted cartridges had the same case-forming problems I have touched on.

The design of a heavy duty reloading press such as the RCBS Big Max is the evolutionary result of four decades of experimenting in the production and use of reloading equipment. RCBS is no stranger in this field and has worked for decades to manufacture high quality reloading equipment.

The Big Max is a step beyond RCBS's famous Model "A" press series. This powerful press incorporates features for the advanced reloader, case former and bullet swager. It has a 1¼-inch

ram with 14¾-inch bearing surface, multiple leverage system with a shovel-type press handle, and an automatic shellholder that accepts cases from the 222 Remington to the 458 Winchester. An adapter to handle the removable shellholder head is included. A special duty kit is available for special heavy-duty use. It consists of a dual mounted, extra-length operating handle with a blank bushing and ram adaptor for custom modification to mount bullet swaging tooling.

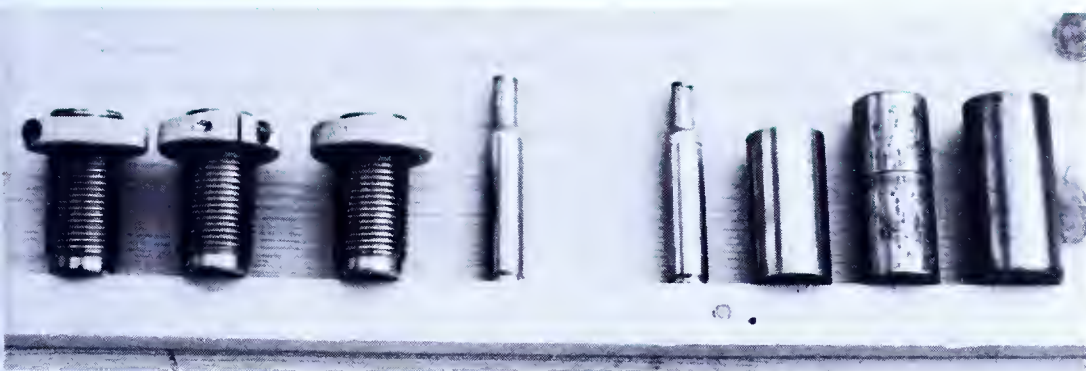
### Case Loss Near Zero

Case loss with the Big Max is near zero if cases are prepared properly. In other words, don't overdo it with the case lube, and check all cases for stress marks or neck cracks. It may take a little time to develop a system, but with this super press, most of the hard work has been taken out of case and bullet swaging.

During my hectic days of custom reloading, I was hard pressed to keep abreast of the orders. When one fellow dropped off several dozen boxes of 30-06 ammo, I lamented the fact that an automated metallic shell press hadn't been developed for the home reloader. Cranking out handloads by the hundreds is work.

A short time later, a reloading friend broke the news that he could get plans for modifying a manually operated reloading press to use compressed air. Knowing I had an air compressor in the

RCBS DIES, left, make it easy to swage 30-06 cases down to 228 Ackley Magnums. Old vise-type dies, right, often buckled cases in shoulder area, making case forming an expensive proposition.



shop, he felt I would be interested.

I expressed doubts about automating a reloading press on the home level, as it already had been experimented with and was considered too dangerous. Once the air or hydraulic operating pedal was activated, there was no way of stopping the powerful thrust of the ram. A ripple of laughter came over the phone, and he assured me there was little danger, and that I would change my mind when his press was "powered."

Without going into detail, I can tell you his press never became "powered." The man who came up with the idea of using an air cylinder for a power unit crushed his left thumb and index finger when a case didn't align with the resizing die. The case ricocheted out of the press, leaving his thumb and finger exposed to the upward thrust of the ram.

The air or hydraulic metallic reloading press for home use is still in the design stages, so far as I know, and it probably should stay there. That doesn't mean the metallic reloading press hasn't been updated to a progressive reloading press. At the moment, there are several new progressive-type presses on the market.

### Months Testing

I spent months testing Hornady's new Pro-7 progressive. As I cranked out 223 rounds at a steady pace, I kept thinking what a difference the Pro-7 would have made when I was reloading hundreds of rounds each evening on a turret-type press.

The Pro-7 is a five-station, automatic advancing, metallic reloading press that handles everything from small handgun to magnum rifle cartridges. You get a completed round with every cycle. Just place an empty case in the shell plate, start a bullet, pull lever and drop powder. Everything else is done for you, including depriming (dead primers drop through a tube to a container below the press), priming, and advancing the shell plate to make ready for the next round.

I don't want to give the impression



**LEWIS** contemplates running hundreds of cases through the Hornady Pro 7 progressive press for a prairie dog hunt. (As we knew he would, he concluded Helen would like to take care of this little chore.)

that the progressive press is foolproof and requires no skill to operate. There is little physical labor involved, but it does take time to develop a rhythm. The operator must concentrate on doing each step in the proper order. The Pro-7 is designed for reasonable speed, but in the beginning, that's the least important aspect. It took me several hours to get the hang of the new press, and several weeks before I was running it smoothly. At first, I could have loaded faster on a hand-type press, but when I got my act together the picture changed in a hurry.

The Pro-7 utilizes a high strength, lightweight aluminum alloy frame with a compound linkage system which operates the two-inch diameter cylindrical carriage. The carriage houses a drive shaft that is attached to the shellholder plate on the upper end and the index wheel on the lower. I





won't get into the details of how the indexing system works, but when the shell plate is full (handgun only), each pull of the handle produces a loaded round. I might mention a handgun cartridge can require several more operations (expand and bell case mouth and taper crimp) than normally would be necessary on most rifle cartridges.

RCBS's 4x4 reloading press is a four-station progressive outfit that is indexed manually. Three of the stations incorporate a spring-loaded detent that holds the case in positive alignment with the die. The detent must be adjusted each time a shellholder plate is changed. This takes but a few seconds on each detent — loosening a lock nut with a ¼-inch box wrench and turning an adjustment screw with a small screwdriver. The lock nut must be tightened securely after adjustment. Since each shell plate may be capable of handling several or more calibers, this really isn't a major problem.

Reloading is accomplished by starting an empty case in station one; this resizes and deprimers the case and allows the spent primer to fall through a tube into a jar below the press. Station two is the priming station for rifle cartridges and where case mouths are expanded for handgun ammo. Station three is the powder dispensing station, and station four is for bullet seating

and crimping. Since the 4x4 doesn't index automatically, throwing a double charge of powder is possible. That's one reason I suggest taking plenty of time while learning.

The 4x4 weighs about 30 pounds and utilizes the well-tested "O" frame design. This means the 4x4 is strong enough for practically all types of reloading. The 4x4's ram is 1½-inches in diameter and has approximately 18 inches of bearing surface. RCBS will be offering a wide variety of shell plates to handle many handgun and rifle cartridges.

### Background Required

I won't say the Pro-7 Hornady and 4x4 RCBS presses aren't for the beginning handloader, but it does take some background in reloading to fully understand and use each press to its potential. Take the time to learn the idiosyncrasies of this type of press. I know from experience that using a progressive metallic shell press is vastly different from using a conventional or turret-type press. But this type is capable of turning out hundreds of top quality loads each hour.

Both the Pro-7 and the 4x4 are well made and will give years of dependable service. Each press is slightly different in nomenclature and operation and requires full attention from the operator.

There has been quite a change since 1901 when reloaders of that era were thrilled with Winchester's New Model Tool for metallic cartridges and shotgunners were using the Ideal Star Crimper and a Mann's De- and Recapper. Today, there is no shortage of high quality reloading equipment. The equipment discussed here will satisfy the most demanding handloader.

## Thoughts While Walking

*Dreams have only one owner at a time. That's why dreamers are lonely.*

—Erma Bombeck

# *In the wind*

bob mitchell



According to annual midwinter surveys coordinated by the U.S. Fish and Wildlife Service, the number of black ducks has been declining at a rate of 2 percent per year for 30 years. Approximately 700,000 were found in 1955, but only 294,000 in 1983. The Service is currently studying the effects of habitat loss, acid rain and other pollutants, hunting, and black duck-mallard interactions to more precisely determine the reasons for this decline.

Bald eagles, ospreys and double-crested cormorants in Michigan are increasing. These three species of fish-eating birds suffered dramatic declines in the 1960s because DDT and other harmful pesticides inhibited reproduction. The use of such pesticides has been outlawed or regulated since then. Last year, 125 bald eagle nests were found and 117 young were produced; both are record figures. For ospreys, 144 pairs produced 224 young, a 30 percent increase over the 1984 production. By 1976, no cormorants had nested in Michigan for 16 years, but since then their numbers have been increasing nearly 50 percent a year. Survey crews located 1817 nesting pairs of cormorants in 19 colonies last year, up from the 1200 found in 1984.

**The Butler County Conservation District recently received national awards for their *Conservator* and *Jr. Conservator* newsletters. These newsletters were selected from 3000 submitted by conservation districts to the contest sponsored by the National Association of Conservation Districts and the Farm and Industrial Equipment Institute.**

Sixty species of animals and plants were added to the federal endangered species list last year, and four were removed because they have recovered and no longer need maximum protection. This, plus the 47 added in 1984, represents nearly 25 percent of the total number of endangered and threatened species. The list now totals 883 species; 390 of which occur in the United States.

Only 10 percent of the old growth forests in Alaska and the Pacific Northwest remain, and most of this is on federal land supposedly managed according to multiple use policies. However, the U.S. Forest Service has sold 67 percent of the old trees in southeast Alaska, and is preparing other stands for clearcutting. In 1983 and 1984, according to the National Audubon Society, the Forest Service spent \$253 million on the timber program for one national forest, but received only \$2.9 million in return. Conservationists are concerned not only about this subsidization by taxpayers, but also because this old growth habitat is needed by many species of wildlife, including the endangered spotted owl.

**Since 1980, 1227 calls were received on Wyoming's Stop Poaching hot line. These led to the arrests of 472 individuals and the collection of \$140,000 in fines. Over the six years, \$66,000 in rewards was paid.**

To improve relations between landowners and hunters in Wisconsin, the Sheboygan chapter of the Izaak Walton League in 1983 initiated a project called GRIP—Grass Roots Ike Program. Two townships were selected for study. After determining the amount of posted land and the amount open only with advance permission, a survey of all landowners was conducted to find out their concerns about granting access to hunters and other users. Trespass, vandalism, and lack of respect were the most common complaints reported. Unsafe gun handling, littering, ignoring posted property, and poor hunter ethics were also mentioned. To help alleviate these concerns, researchers developed an identification card for users to give landowners while they're enjoying the use of private property. The final phase of this study will be an evaluation of this procedure.





## Voluntary Waterfowl Stamp No. 4

Pennsylvania's 1986 waterfowl management stamp, created by Alabama artist Robert C. Knutson, is the fourth "duck" stamp offered by the Game Commission. Funds derived from stamp sales are used for wetland acquisition, habitat development, and waterfowl-related education. Stamps cost \$5.50 each, \$22 for a plate block of four, and \$55 for a full sheet of ten, delivered. 1984 and 1985 stamps are still available, at these same prices. For additional savings, the cost for five or more ten-stamp sheets, in any combination of years, is \$40 per sheet. The 1984 stamps will be available through December 31, 1986, at which time all remaining supplies will be destroyed.

Stamps are available at the Game Commission's Harrisburg office, regional offices, the Pymatuning and Middle Creek Wildlife Management areas, and at participating hunting license issuing agents and stamp dealers. Signed and numbered fine art prints of this design are available from art dealers and galleries nationwide.



*Country Lane Kestrel*, by Bob Sopheick, is the fourth limited edition fine art print—and the first selected from a contest open to Pennsylvania wildlife artists—available through the Working Together for Wildlife program. As with the previous editions, *Country Lane Kestrel* is limited to 600 signed and numbered prints. Image size is approximately 15 x 22½ inches, printed on acid-free 100 percent rag paper. Price is \$125; framed prints are an additional \$97.50. Requests for specific numbers will be satisfied on a first-come first-served basis. Orders should be sent to the Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567.



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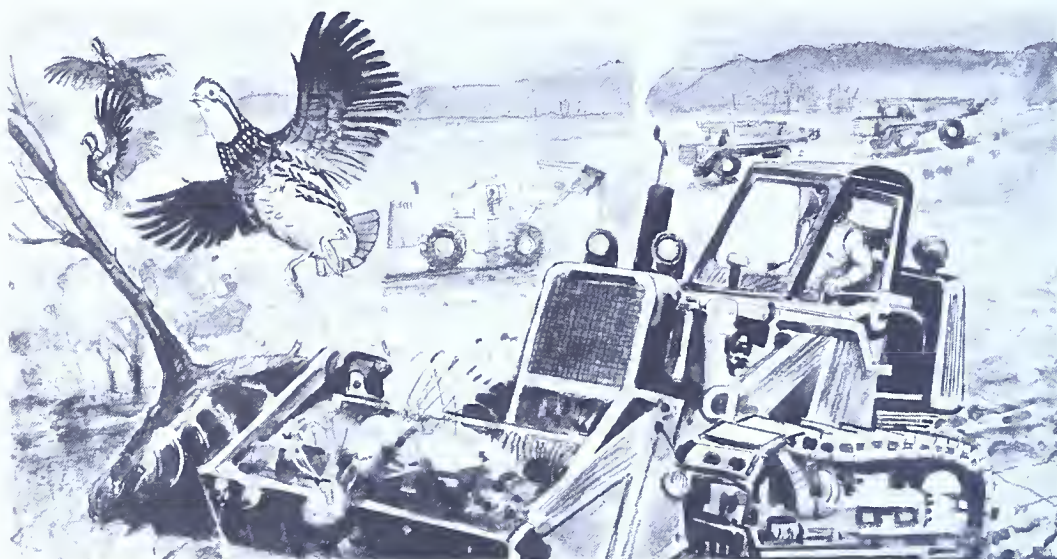
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# What are you doing on Saturday, September 27?



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**Sept. 27, 1986**



# More to Huntin' than Shootin'

By Marion Younkin

**I** REMEMBER when I was just a tyke, sitting in our living room, listening to my father and grandfather discuss their day afield. Smoke from pungent pipe tobacco would curl about the lamps and hold an eight-year-old spellbound in the mists of fantasy. Tales of the flush and chase primed my imagination. Dreams of clear November days, with me and a trusty beagle tramping out the frosty fencerows of Somerset County to return home at day's end with a full game pouch, dominated my nights.

My twelfth birthday fell on the opening day of small game season that year. For my birthday present, Dad gave me a well-used 20-gauge single-shot Savage, and told me I was finally going hunting. It came as no surprise, as I had been pestering him about it for months. This was in the days before mandatory hunter education courses. My father gave each of his sons a year of firearms instruction before the youngster was allowed to hunt. Praise was a grunt, disapproval a healthy swat on the backside.

Breathless anticipation and excitement consumed me as Dad, my brothers Bob and Mart, and I set out for Mount Davis. The beautiful slopes of Pennsylvania's highest mountain made this experience more memorable, but



**WHEN I was a tyke, tales of the flush and chase primed my imagination as I listened to my father and grandfather talk about their day afield. I knew that someday I'd be hunting too.**

after an exhausting day I dragged myself home empty-handed. My brothers had bagged two rabbits apiece, and Dad had *four* rabbits and a grouse!

"More to huntin' than shootin'," was the only comment Dad made about my poor performance. My disappointment was sharp, but I listened . . . and learned.

As I grew older, I was able to hold my own with my brothers, and I enjoyed our family jaunts more each year. I spent hour after hour in the woodlands, hunting and just enjoying being there.

No matter how hard I tried to match Dad's woodcraft, I couldn't equal his ability in the forest. He seemed able to spot a sitting rabbit at fifty paces and hear a squirrel on a tree a half-mile away. Grouse posed no problem for Dad, and he would invariably go into mild hysterics as I tried to get off a second shot with my little 20-gauge. Those days of autumn splendor created some of the best memories of my life.

Twenty years later, although family



**DAD SEEMED** able to spot a sitting rabbit at fifty paces and hear a squirrel on a tree a half-mile away. No matter how I tried, I couldn't match his ability.

responsibilities make it difficult, we still enjoy small game hunting as a group. Dad is retired from the Postal Service now, but at age 65 still loves hunting as much as ever. Both Bob and Mart have families, and I have a new home on the slopes of Laurel Mountain only a stone's throw from Laurel Hill Creek. The abundance of game in this area has amazed me. In November 1984, I suggested that the last hunt before deer season be at my place. Dad, Bob and Mart agreed, but were skeptical of my estimate of our chances.

At 6 a.m. Dad's Blazer pulled into my driveway. Over coffee I explained my plan to the others and pointed out the direction I wanted to go. We set off for the crabapple thicket bordering Laurel Hill Creek. Dad's beagle Duke was dancing and straining on his leash in his overeagerness to get on a hot rabbit scent. Ten feet into the thicket he had his wish.

A brown rocket zipped by me so fast I was wondering if it was really a rabbit, when the boom of Mart's 12-gauge was followed by, "Got 'im!" As he was

field-dressing the first rabbit of the day, Duke's deep bass bellow let everyone know that another cottontail was on the move. A perfect circle brought the bunny within 30 feet of me, and one shot accounted for my first rabbit of the season. Not two minutes later, Bob's 16-gauge double barked twice. "Rabbit up," he yelled, to let us know he'd missed. Duke, again, worked the rabbit to perfection, and Mart bagged his second bunny in little over half an hour.

Cottontail number four burst from under my feet and dove into a tangle of brush before I could shoot. Duke rooted it out and ran it past Bob, who made a fine shot to add this one to the bag. The next one got into a hole after Dad flushed and missed him. Another one led Duke on a merry chase out of sight before tiring of the game and slipping to safety under a rockpile. I felt this was a good time to take a break and see how Dad was holding up.

"Know where there's any rabbits?" he asked me with a huge grin.

"How about a pheasant?" I replied, nodding toward a fencerow to our right.

### After the Noise

Dad just smiled and started to work it out. Ten minutes later a nice cock and three hens broke from the grass and flushed in front of me. After the noise died down, I was aware of laughter coming from Bob and Mart. Duke was looking at me as if I were some sort of Martian. My gun was empty, three spent shells lying nearby. The birds were gone. I never was too good at wingshooting.

As I slowly stuffed shells into my gun, Dad quietly said, "Look there." Ten deer had walked out of a stand of pines and were staring at us. After some stomping and snorting, they vanished back into the pines. We continued on our way.

The next bunny broke cover along the banks of the creek and gave me a good shot. Bagging it made up for missing the pheasant. At least to me.



Dad came through a screen of crab-apples and congratulated me on my recovery from "shootin' sickness." What could I say? I never could hit birds.

"Beaver around here?" Dad asked, pointing to a gnawed-off stump. The conical top was unmistakable.

"The dam is just over there," I answered, pointing to the stream. "I found it trout fishing."

Dad's eyes shone as he inspected the pile of limbs across the stream. "Haven't seen a beaver dam in years."

### "Comin' Down"

While we stood there a pair of ducks paddled upstream. Then Duke's excited bellow let us know that the rabbits were still around. Bob yelled, "Comin' down."

Mart's 12-gauge blasted twice. "Got 'im," he called. "That's my third. Maybe I'd better take it easy so Dad can catch up."

Dad just grunted and started off downstream.

By the time we stopped for lunch, Bob had added another rabbit to his bag. Munching candy bars, we discussed what to hunt next. We could hear a pheasant crowing from a stream bottom to our left, but as I had not asked the owner for permission to hunt there, we decided to stick to the crab-apples. Suddenly a rapid rat-a-tat broke the stillness.

"That's grouse drummin'," Dad muttered. "Let's go."

A short while later, as we were slipping through a small stand of pines, the forest exploded with grouse. Mart was in action again, and so was Bob. A grouse apiece was added to their total.

We were now nearing the end of the thicket where I thought our chances of flushing pheasants would be better. Instead of birds, two rabbits broke cover at the end of the fencerow. Duke came plowing out of the crabapples and took the trail of the rabbit on the left. The other rabbit, confused, tried to break back into the thicket and ran directly at Bob, who nailed it easily. Duke was going full speed in the hayfield. His

bellows and yelps allowed us to follow the progress of the chase as it wound in and out of sparse brush and streaked across open ground.

At last the wily cottontail turned and started back along Laurel Hill Creek, Duke hot behind. Dad was on that side of the field. I held my breath, hoping he would get his first rabbit of the day. Duke was tiring now, and falling behind, when the cottontail burst into view about 20 yards in front of Dad. One shot from his 16-gauge Ithaca was all he needed. Bob, Mart, and I congratulated him on a fine shot and praised Duke for his good work. Duke seemed to expect this, and Dad was grinning from ear to ear.

As we headed back to the house, a V of southbound geese passed overhead. I wanted to check for deer sign in the area I planned to hunt Monday. As we neared the oak forest, several gray squirrels scampered away through the treetops. I soon found several sets of deer tracks well within range of the old log I was planning to use as a seat.

"Lots of game around here. You'll do all right come Monday," Dad said. "Turkey scratchin' back there. Lots of acorns and cover. Just don't get buck fever."

### Not Since Youth

Later, while drinking coffee at the kitchen table, we went over the day. Not since my youth had I had a hunt like this one. I had seen more game in one day than I had in some entire seasons.

"The boys outdid the teacher today," Mart joked, trying to get a rise out of Dad.

"More to huntin' than shootin'," came the reply.

I just smiled.

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For a Friend . . .





# Spying on the Phantom

By Al Shimmel

**I**MPORTANT correspondence that had for some time required my attention sent me reluctantly to my desk. The warmth of spring made concentration on such a task quite a chore. My inclination was to be outdoors. Birds were vigorously announcing the borders of their nesting territories. Two robins were engaged in combat, each claiming the earthworm-rich garden for his own. So many interesting things were happening that it required stern discipline to begin the task at hand. Then the telephone demanded my attention. I tried to ignore it, but it persisted.

Trying to keep the irritation from my voice, I picked up the receiver. The caller was a good neighbor, living nearby. He was sure that a bird, which at that precise moment was wandering along the edge of his garden, was one I would be much interested in observing. He had never seen such a strange looking bird. In a matter of minutes, work forgotten, I was standing by his side.

One corner of a small alder flat borders my neighbor's garden. I suspected this creature — a woodcock — had found in the garden a well-provisioned pantry.

## Not Uncommon

It is not uncommon for individuals who live near good woodcock cover to be unaware of the birds. When they do accidentally catch a glimpse of the phantom, they fail to identify it and lack the curiosity to pursue its identity.

The woodcock appears to be a conglomeration of heterogenous parts. Indeed, it might have been this idea that gave rise to an Indian legend that tries to account for this bird's creation. It says that many, many moons ago, when

the Great Spirit had finished creating the birds, he found in the bottom of his medicine bag some overlooked parts. Not willing to discard this precious material, he placed it in a heap and contemplated it while he smoked his calumet. When the pipe was finished, he assembled the ill-fitting parts together then studied his handicraft. It had little of the neatness of its cousins the shorebirds, so he made up for the lack by bestowing on this his final bird creation, some special gifts. One gift was the power for the woodcock to make itself invisible at will.

## Aliases

The American woodcock has more aliases than a confirmed criminal. It has been called the Phantom, Brown Ghost, Wood Snipe, Hokumpake, Whistler, Labrados, Twister, Timberdoodle, Mud Sucker, and some unprintable things, especially when a gunner drops only a shower of dry leaves instead of the elusive feathered target he thought was an easy mark. The scientific name is *Philohela minor*, which means little swamp, an allusion to its preferred habitat in the damp lowlands.

The woodcock is classed with the shorebirds. There are individuals who refer to him in scornful terms because his ancestors, long ago, forsook the ocean beaches with their feathered hordes and the bitter brackish waters of the salt marshes. The woodcock chose to leave the nervous riotings and uneasy comings and goings of its kin for the quiet of the alder swales and sunny aspen slopes where the only song was the whisper of the wind in the leaves or the splash of a rising fish. He settled with his kind, preferring the uncrowded life beside the cold sweet

waters. For his tribe, the seclusion and the ample food supply were more desirable.

Secretive by choice, nocturnal by habit, the bird hides its private life from all except the prying eyes of a confirmed naturalist. It sees well in the dim light of dawn and dusk, and goes about its business of life under the cover of darkness. Food means worms and more worms, with some insects added for good measure. Its appetite is prodigious. If the average man took in the equivalent amount of protein, he would consume 80 to 100 pounds of beefsteak every day. The comparison is not as ludicrous as it appears. Chemical analysis proves that earthworms and the best grade of lean beef have approximately the same protein content. The bird eats about 100 earthworms every 24 hours. This is about the same number that a small boy would use in a day of fishing.

### Signs Indicate Presence

While visual contact with the bird in its chosen cover is difficult, there are signs that clearly indicate its presence. Digestion is so rapid that chalkings mark its feeding grounds. These white splashings with their dark centers are everywhere in these areas. Small round holes where the bird has been probing for worms are another sure indicator. There are some puddles along an old road traveled only by fishermen to reach their favorite trout pools. These puddles are damp enough to keep the surrounding earth constantly damp. Almost any day when there are no sharp freezes, the area is pockmarked by probings and covered by a maze of tracks. This is an index to the presence of birds in the nearby covers.

How is feeding accomplished? The upper mandible is longer than the lower and moves independently. It has a flexible tip that is well supplied with sensory nerves. With this specialized equipment it makes contact and extracts worms from the soil. The auditory opening is located below the eye in a position that is most efficient for de-

tecting movements beneath the surface.

Studies of soil types show that where worm populations are approximately equal the bird will choose to probe clay soils with greater frequency. Loamy soils are second choice. It will work sandy soils only as a last resort. Unless extremely hungry, woodcock will many times refuse worms obtained from sand. Worms are most abundant in slightly acid soils. Perhaps the woodcock hunter should carry a soil testing kit when he does his pre-season scouting for the Phantom.

Woodcock are occasionally observed at dusk, feeding on lawns and in gardens close to their habitat. If you value these visits as well as those of robins and other worm eating species, be sure to check the chemicals used to eradicate quack grass and weeds. Those that contain chlordane and arsenic should be avoided. The use of insecticides containing DDT are now prohibited by law in the U.S. These chemicals accumulate in the bodies of earthworms and often prove fatal to birds. The effect is not apparent until several weeks after the chemical has been applied.

Woodcock are migratory, yet occasionally one will winter along unfrozen springs and brooks even in the dead of winter. On one occasion when the snow had accumulated well over two feet near our mountain cabin, we regularly observed a woodcock along the brook that flowed through the marsh from a sand spring. How it survived the frequent zero mornings remains a mystery.

Woodcock begin their northward trek in early February. By the middle of March they have reached the northern tier of states. In central Pennsylvania we expect them with the full moon of March. Their homing instinct is strong and marked birds show they tend to return to the area where they were hatched. Males have been heard on the singing grounds when the temperatures were still in the low teens. Tracks and probe marks are occasionally seen in a late snow.





**AT MY FEET WERE** four woodcock chicks crouched in the sphagnum. They were not long out of the shell. Their down stuck out in sharp points that made their camouflage even more complete.

The mating ritual is a most interesting performance. At dusk the male selects a small clearing in or close to cover. Here he struts, elevating his spread tail, dragging his downthrust flight quills, and stepping proudly like a miniature turkey cock. He utters a call note that has been compared to the b-e-e-p of a short wave signal. There is a buzzing-metallic quality to the sound that is hard to describe, but once identified is never forgotten. This note is repeated at intervals. After calling for a time the bird finally springs into the air, accompanied by the same tittering wings that marks his autumn flush before the gun.

His flight begins as a circle that may be 50 yards across, but it quickly tightens into a spiral with the point of departure as its center, until the bird is almost lost against the sky. At the apex of its flight we hear a sweet bubbling song that some have fancied as resembling that of a song sparrow. Suddenly it ceases both its flight and song, side-slipping back to earth to arrive at his takeoff point. Now his b-e-e-p is interspersed with a low coaxing note that resembles the distant cooing of a dove. If a female is near they both make soft whining sounds like newborn puppies. The ritual is repeated at dawn and dusk until the clutch is laid and the hen is incubating. Immediately following the mating the female leaves for the nesting grounds. Sometimes several fe-

males are attracted. In one case I saw three females on the same singing grounds at one time.

I was tired and discouraged. For three evenings I had followed the flight of a particular female as she left the singing grounds, and was sure she was nesting within a particular area having a radius of not more than a hundred feet. But two afternoons of intensive search had failed to discover the nest. A tuft of grass caught my eye. Already it was two inches high. Other greenery was pushing the brown leaves aside in its search for sun. Time was at a premium. Suddenly, I blinked, unbelieving. I turned my head away, then looked again. It took a conscious effort to locate the bird again. My search was over. The bird was crouched almost at my feet, its protective coloration making it almost invisible. In the course of my search I had passed within a yard of the bird. Proof — a broken branch that I had stepped upon the previous day.

### Sunny Slope

The nest is usually on a sunny slope to the singing grounds. A small depression in the fallen leaves serves as a receptacle for the eggs. They are so large it is hard to believe a woodcock could have laid them. Usually they number four; less frequently, three. Each is an opalescent pinkish brown blotched with brown or blue-gray at the larger end. They hatch in about three weeks.

On the nest the female places such reliance in her protective coloration that she sometimes allows a hand to touch her back before she will move. The broken-wing act will be performed most convincingly to protect both eggs and young.

We were crossing a sphagnum bog to reach the edge of the lake for some early pickerel fishing. Suddenly, from almost under my feet, a woodcock flushed, then dropped to the ground and lay fluttering as if mortally wounded. My friend, not being familiar with the bird, crept forward to capture the apparently helpless creature. At my feet four woodcock chicks crouched in the sphagnum. They were not long out of the shell. Down still sticking out in sharp points made their camouflage even more complete than usual. I stood still, watching my friend's efforts to take the bird that always remained just beyond his grasp. After a few yards he stepped into a boggy spot and sprawled headlong while the bird took flight.

When he came back and I pointed out the tiny chicks, he was somewhat mollified and even consented to hold one for a photograph.

### Perfect Camouflage

The chicks, too, have perfect camouflage. They are a buffy brown with dark chocolate diamonds marking the head and brown streaks along their sides. The legs and feet are flesh pink. In two weeks they are able to fly and in one month are independent. Chick mortality rate is low, usually not more than 25 percent, although some predators, including skunks, possums and domestic cats destroy the nests and young. I am inclined to believe woodcock are distasteful to certain animals. This is pure speculation on my part, based in the observation that some bird dogs refuse to retrieve them unless

forced to do so. Some dogs refuse to touch the bird under any circumstances.

Woodcock are relatively free of disease. Limiting factors seem to be lack of suitable habitat and the ingesting of chemical poisons with their food. Heavy losses sometimes occur when subnormal temperatures and ice storms coincide with migration concentrations. Lack of food can cause alarming losses among breeding populations.

Many gunners are not aware that most eastern woodcock funnel through central Pennsylvania into Maryland and Virginia. This migration occurs only at night and, strange as it may seem, their flight is silent as an owl's. Coverts that yesterday had a few native birds may overnight hold scores. Chalkings are everywhere and these give gunners a clue to the concentrations. But just as suddenly as a migration comes it is gone. Perfect conditions for large flights occur when a severe storm sweeps along the border of Canada in the time of a full moon. If you know of a valley that extends north and south, look for them on the sunny side of the hollow. Perfect conditions occur rarely, but when they do the numbers are amazing. Another day or two and the birds will be gone.

To hear the call of the woodcock in the spring twilight is an unforgettable experience. To witness his spiral climb and hear his beautiful liquid song as he zigzags down is for those who seek the Phantom on the singing grounds. When the falling leaves of autumn indicate it's time to seek this elusive target, search the alder swales and grassy flats where the maple and thorn grow far enough apart for grass to flourish. A good dog that works close, a light open-bore gun, and a good companion make days to remember when the logs flame on the hearth and chill winds howl.



# Protecting Our Birds of Prey, Legally

By Bob Mitchell

Assistant Editor, GAME NEWS

**P**ENNSYLVANIA is blessed with a wide variety of raptors. Over the course of a year, 25 species of vultures, hawks and owls can be found here. These birds are ecologically valuable because they control small mammal populations, weed out sick and injured animals, and act as scavengers. They are esthetically valuable, especially to the thousands of bird watching enthusiasts who devote a great deal of time and effort to searching for just the sight of these majestic birds.

Unfortunately, these birds are being killed for profit and out of ignorance.

Today, all vultures, hawks and owls are protected by federal and state laws. In total, these laws make it illegal to hunt, harm, kill, possess, buy or sell, or transport any bird of prey, any part of a bird of prey, any egg, or any part of their nests. In essence, raptors are afforded total legal protection. Except for legitimate zoological, scientific, educational and medicinal purposes, there is no reason any individual should disturb the wellbeing of any vulture, hawk or owl.

Only recently has this group of birds been afforded such extensive legal protection. For many years these predators were considered vermin, and bounty programs actually encouraged sportsmen and landowners to kill these birds.

As more was learned about raptors

and their ecological importance, however, bounty systems were replaced with protective laws.

The first such law was the Bald Eagle Protection Act, passed in 1940. This law was enacted to protect our national emblem because, even at that time, it appeared bald eagles were becoming extinct. This law made it a criminal offense to take or possess a bald eagle, or any part, egg or nest. The Bald Eagle Act was amended in 1962 to include golden eagles. This was done to further protect immature bald eagles, as they are difficult to distinguish from goldens. Maximum fines for violating the Bald Eagle Act are \$5,000 and one year in prison for the first conviction, double that for subsequent convictions. Up to \$2,500 may be paid



**ALL BIRDS** of prey, including the great horned owl, right, are fully protected by state and federal laws. They and their nests and young may not be hunted, killed, molested, bought or sold.



**CONTRARY** to some beliefs, there is no scientific evidence that hawks and owls are responsible for diminished small game populations. As a group, these birds prey most often on smaller mammals and birds, reptiles and amphibians, and insects.

word, a person can't be charged with transporting illegally taken wildlife until it is proven that the wildlife was taken illegally.

The Lacey Act wasn't originally intended to protect birds of prey. In fact, 86 years ago there were no laws protecting this group of birds. Since then, however, such laws have been passed, and the Lacey Act has become a valuable tool for controlling the illegal sales of these birds and the products made from them. Violators of the Lacey Act are liable for a \$20,000 fine and up to five years in prison for each charge.

to persons providing information that leads to a conviction under this act.

All raptors are now protected by the Lacey Act and the Migratory Bird Treaty Act. When these laws were passed, in 1900 and 1918, respectively, they didn't cover birds of prey, but since then each has been amended to include these birds.

### Lacey Act

The Lacey Act was passed to help state wildlife agencies control illegal market hunting of game birds and songbirds. According to this law it is a crime to transport illegally taken wildlife across state borders. Subsequent amendments have granted fish and plants the same protection, and broadened the scope of the act to encompass the transportation of illegally taken wildlife across international borders. (The authority granted under this law is the basis upon which federal standards have been developed and are being enforced to ensure the safe and humane transportation of legally taken wildlife.) Because the Lacey Act prohibits the transportation of illegally taken wildlife, prosecution under this act is contingent upon the indisputable violation of a wildlife law. In other

The Migratory Bird Treaty Act was signed by President Woodrow Wilson. It established authority for the Migratory Bird Treaty which in 1916 had been signed by the United States and Great Britain, at that time still governing Canada. This act, in essence, made it illegal to kill, capture, transport or market any migratory bird, part, egg or nest. The United States signed a Migratory Bird Treaty with Mexico in 1936, and a similar treaty with the U.S.S.R. in 1976. This law grants protection to nearly all species of North American birds. Only nonmigratory birds such as turkeys, ruffed grouse and quail, for example, and introduced birds such as the European starling and house sparrow, are not protected under this treaty.

It is the Migratory Bird Treaty Act that authorizes the U.S. Department of the Interior to annually set season and bag limit guidelines for migratory game birds, most notably mourning doves and waterfowl. State wildlife agencies design their own seasons and bag limits according to these federal guidelines. Another provision—which has gotten rather controversial in recent years—exempts native Alaskans from this act so they can practice traditional customs by taking nesting water-



fowl and their eggs. A \$2,000 fine and a two-year sentence is the maximum penalty for a violation of the Migratory Bird Treaty Act.

The Endangered Species Act, passed in 1973, granted legal protection to those species of plants and animals considered in danger of extinction in the foreseeable future unless deliberate remedial actions were taken. Bald eagles, golden eagles and peregrine falcons are the birds of prey which might be seen in Pennsylvania and which the federal authorities consider endangered or threatened. According to the Endangered Species Act, it is unlawful to take, harm, possess or market these species, or even attempt to do so. This act provides a maximum penalty of \$20,000 and a year's imprisonment for each offense.

All hawks, vultures and owls are protected by state laws, too. These birds are categorized as "protected birds" in the Game Law. This category includes all wild birds except game birds, unprotected birds (house sparrows and starlings), and the common crow. Except for provisions made to accommodate the needs of scientists, rehabilitators and falconers, protected birds may not be legally taken, killed or possessed. Penalties ranging from \$10 to \$200 can be imposed for such acts.

Because federal laws are more stringent than state laws, they normally are given precedence when it comes to prosecutions.

It is reasonable to assume from this extensive legal coverage that hawks and owls need such protection to thrive. Actually, the impacts that shooting, trapping and black market activities are having on these raptors is not known. Information from the U.S. Fish and Wildlife Service, however, does demonstrate the relative importance man-caused mortality might be having on bald eagle populations. From 1980 through 1982, there were 297 known deaths and 118 injuries to bald eagles. The causes for 193 (65 percent) of the deaths and 90 (76 percent) of the injuries were identified. Shoot-

ing was the most common cause of death and injury. Electrocution, roadkills, trapping and poisoning were among the leading causes of eagle losses.

This information is undoubtedly biased. Eagles shot, electrocuted, struck by motor vehicles, caught in traps and poisoned are more likely to be discovered than those that are starving, have fallen from nest trees, are diseased, or suffer from any number of other natural causes. The important point is that man-caused mortality factors are significant, and they are the ones that can be controlled. Protecting birds from high winds is hopeless; protecting birds from the greedy and ignorant actions of man is not.

### Added Pressures

Raptors are subject to more pressures than most other animals. In addition to suffering from habitat loss as all plants and animals do, this particular group is overly susceptible to pollution and environmental disturbances, to the heightened greed of those anxious to cash in on the financial value placed on some of these birds, and to persecution by unknowing individuals acting under the mistaken impression that birds of prey are competitors of man.

As we've learned from experiences with DDT, raptors, as predators, represent the pinnacle of a food pyramid. This precarious position makes them most susceptible to both man-caused and natural catastrophes.

The commercial value placed upon some of these birds and the trinkets made from their feathers and claws motivates many dedicated and organized criminals. The U.S. Fish and Wildlife Service has estimated that at least 300 bald eagles a year are killed to fill the demand for jewelry and ornaments. An eagle carcass is worth up to \$1,000 on the black market, and a single feather can be worth up to \$35. Products made from eagle parts can bring thousands of dollars. Falcons and their eggs command high prices, too. After gyrfalcons, the peregrine is the



**LAW ENFORCEMENT** officers need public support to most effectively control the killing of birds of prey. If you know or hear of any such incidents, call your local district game protector.

Hawks and owls used to be held in low esteem. In fact, the Game Commission had bounties on goshawks until 1950, and on great horned owls until 1964. But birds of prey are better understood and appreciated now, and numerous laws protect them.

Ultimately, it's up to society to determine how effective these laws are. So long as there's a monetary value on dead birds, some persons will take the risks to make a profit. And, so long as there are those who can't tolerate birds of prey in their surroundings, these animals will be needlessly persecuted.

Raptors will be completely protected only when people place a higher value on a bird in the wild than one on the wall, and when more people realize that birds of prey are valuable components of our ecosystem and, as such, are entitled to the same considerations given all other organisms. Law enforcement is a useful tool, but only when attitudes are changed will these problems be solved — and changing attitudes is a longterm information and education process.

In the meantime, though, concerned citizens can help the process. If you know or suspect a person of killing or marketing birds of prey — or any other wild animal — call the local district game protector. As with any other law enforcement effort, legal attempts to protect birds of prey are only as good as the public support behind them.

most valuable bird among falconers. A peregrine falcon is worth up to \$2,000 in this country, and many times that in Europe and the Middle East.

Finally, these predators are subject to indiscriminate shooting, trapping and poisoning by those who think "the only good hawk is a dead hawk." Many blame hawks and owls for low small game populations. There's no denying that a few of these birds take some small game, but no evidence indicates these birds exert any significant control over small game populations. An abundance of hawks and owls signifies an abundance of prey, and prey for them most often means small mammals such as mice and voles, along with reptiles and insects.

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## Middle Creek Wildlife Art Show

The first Middle Creek Invitational Wildlife Art Show will be held at the Visitors Center of the Middle Creek Wildlife Management Area in late August. The public is invited and there is no admission charge. Approximately twenty regional artists are expected to exhibit their work. Dates and hours are: August 22, noon to 5 p.m.; August 23, 9 a.m. to 5 p.m.; August 24, noon to 5 p.m. The MC Wildlife Area is located near Kleinfeltersville, in Lebanon and Lancaster counties.





# Rabbits Are Where You Find Them

By Dave Fisher

MARTIN KEITH AND I were sitting on the high bank of the stripmine, taking a break from a long morning of hunting. We were discussing the different areas where we had kicked up a dozen rabbits in just a few hours.

"I've always heard you hunt on the sunny side of the hill and in deep valleys out of the wind to find rabbits," Martin spoke up. "But we found rabbits just about everywhere around this stripmine. I guess that just goes to show you, rabbits are where you find them."

Martin had hit upon a good point. Rabbits are just where you find them. Of course, our three frisky beagles were responsible for locating most of the rabbits, but it was no surprise where they were found.

The stripmine was overgrown with blackberry bushes, honeysuckle vines and crabapple thickets, so the rabbits we found did have something in common: they were all found in heavy cover. Because the underbrush was so thick, most hunters without dogs avoided this area.

Because of diminishing habitat, most rabbit hunting is confined to small thickets and woodlots. Large hunting parties of four or five are not as



**RABBITS** have favorite places where they like to sit: on steep wooded banks, under clump bushes, dewberry and other vines, and in depressions left by uprooted trees.

effective as they once were. With much of the hunting being done in these smaller thicker areas, a large hunting party can also be dangerous.

A pair of hunters working, or perhaps a threesome, can keep track of each other's movements. Smaller hunting parties will usually move slower and cover thick patches more thoroughly than the "sweeping line" of a large group, too.

Rabbits also sit tighter when fewer hunters are around. This gives individual hunters an opportunity to spot sitters that would likely slip away unseen from the noisier large party.

Looking for sitting rabbits is an old hunting method that can still be effective. It is also a method seldom employed nowadays.

Cottontails need little cover to hide them. A friend once kicked out several rabbits which had taken refuge under

the scattered sheets of a newspaper! Sitters can be spotted easily if the hunter trains himself to look at brush as the individual pieces it is. Rabbits have favorite places where they like to sit: on the sides of steep wooded banks, under clump bushes, dewberry and various other vines, and in depressions left by uprooted trees. Although rabbits are where you find them, these locations are the easiest places to spot them. The hunter must look at each such spot as an individual piece of a large puzzle. He must look at the base of every tree instead of just glancing at a small patch of woods.

I have often heard that you see rabbits by looking for the black eyeball. This has rarely worked for me. True, sometimes the eyeball is conspicuous, but once a couple of sitters are located you will find the rabbit's oval shape and fur texture will give him away quicker than searching for eyeballs.

If a rabbit hunter wants to become more than just average, he will also watch the weather carefully. Weather can be the most important factor in successful trips afield. Early in the season when the weather is warm and pleasant, hunters expect to do well but find few rabbits. They immediately think the "great rabbit disappearance" has ruined another season. This is usually not the case.

### Parasites

Unfortunately, the cottontail is plagued by a multitude of fleas, ticks, mites, and a variety of parasites. During the hot dry days of early fall, these pests irritate the rabbit constantly. To escape some of this, the bunny simply retreats underground. He then becomes active during the cool nights. This is also one reason hunters are often more successful in the late season.

Although a determined hunter can do well without dogs, he is missing out on an experience he will never forget. One or two good beagles can become loyal friends and tireless hunting companions. They never refuse to go hunting or call at the last minute to say, "We



can't make it." The hunter fortunate enough to have dogs that hunt well and obey him enjoys outings of a totally different, more complete, variety.

Late in the season I loaded up the dogs and took them to the mountains. I knew there wasn't much chance of success, because of the snow and the cold, but the mountains hold big woods rabbits and offer quiet uncongested hunting. I was also hoping for a nice big rabbit, as a friend had offered to mount one for me.

The dogs managed to roust a few in a huge pine thicket, but the deep powdery snow kept them from pushing any out to where I could get a shot. At 2:30 they jumped one, and this time stayed on the trail until 3:00 before losing the scent. Feeling this would be the last chance of the day, I searched until I found the tracks myself, and got the dogs back on the trail.

They did an excellent job, several times going out of hearing as they ran the rabbit around in the huge thicket. I took a stand at an intersection of two of the many access roads that cut the pine grove into large sections. The rabbit had passed near this intersection sev-

eral times, and I hoped he would again.

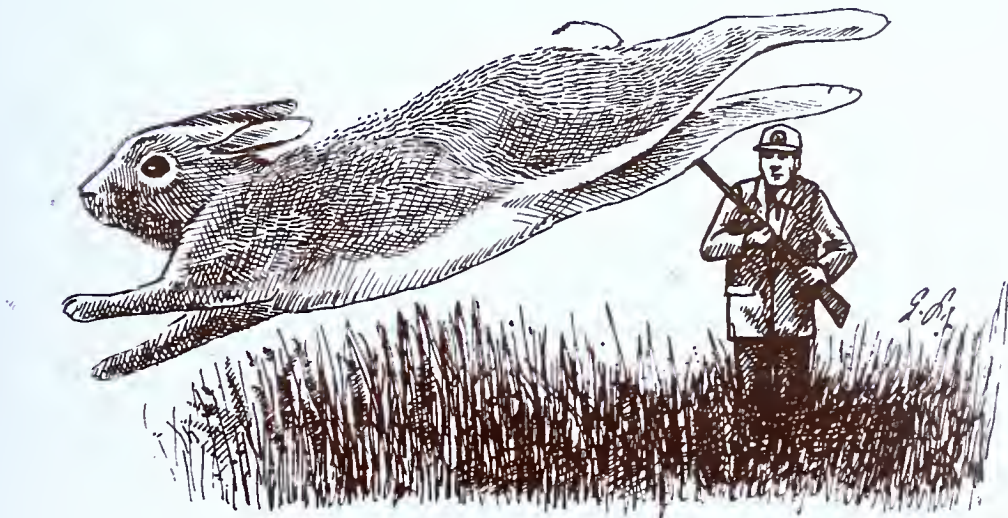
About 4 o'clock I heard the dogs approaching, and ten minutes later the big rabbit broke out of the pines. My first shot tore snow and pine needles from a tree just inches in front of him. The bunny slammed on the brakes and spun around, but at my second shot he nosedived into the snow. The dogs deserved steak that evening after the job they had done. They had transformed a rather uneventful hunting day into an exciting adventure, one I will remember for a long time.

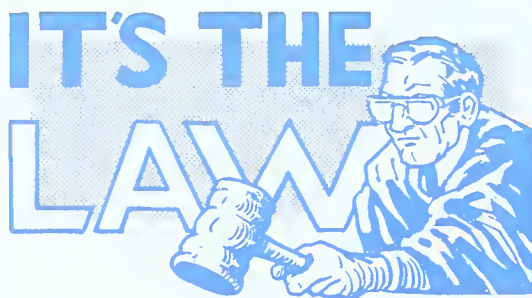
### Not Always Perfect

Having dogs doesn't always mean a perfect ending to the story, however. One time Bud Dye and I found a rabbit in a spot that almost guaranteed it was headed for the pot, but it didn't end up there. I hope Bud won't be too embarrassed if I tell the story.

The dogs bounced a bunny out of a small strip of heavy vines, and Bud and I saw it briefly as it slipped into another strip of weeds. These weeds were on the side of a steep bank and inaccessible to the farmer's tractor.

**A PAIR OF hunters, or perhaps a threesome, can easily keep track of each other's movements, but a large hunting party can be dangerous in thick cover.**





### Question

Is the Safety Zone the same for a high-power rifle as it is for a shotgun?

### Answer

Yes. The Safety Zone is the same for a high-power rifle as it is for a shotgun or any firearm or other deadly weapon, 150 yards. This also applies to trapping. The Safety Zone Law applies if the land is "open" or "closed" to hunting and/or marked or unmarked with Safety Zone Signs.

find many rabbits there, but we were anxious to try any new area.

We had just left the truck and started through an overgrown pasture when the dogs started barking. In just a few moments a large bunny bounced out onto one of the heavily used cattle paths. The rabbit tumbled at the sound of my shotgun. As I bent to pick it up, Joe's gun also went off. I looked over to see him hoisting another large mountain rabbit.

### Every Ten Minutes

In the next five hours we jumped a rabbit nearly every ten minutes, rousting a total of 27 before returning to our vehicle. Rabbits seemed to be everywhere on the farm, but were concentrated in the narrow brushy strips where pasture and hayfields met the timberline. We limited out.

Rabbits are usually found much more readily in the lowlands, but under the right circumstances they can be found almost anywhere. The fact that we found so many concentrated on one farm in the middle of the mountains was rare. We took many more trips to the mountains, but none was ever as successful.

Late on another day near the end of the season, I was returning to the truck, three rabbits hanging from my belt. The dogs were working along a hillside, moving faster than usual. By the sound of the chase it was clear the bunny wasn't coming my way. I headed for the truck. The dogs would catch up in a little while.

Up ahead, I noticed an uprooted tree honeycombed with holes through the roots and soil. Automatically, I shoved my boot into one of the holes—kicking a big rabbit right in his cotton-tail! He spun around the pile of roots and raced straight away from me. The 1100 bead locked onto the space between his ears and the bunny tumbled.

I picked him up, then looked back at the excellent hiding place he had chosen. "That just goes to show you," I muttered. "Rabbits *are* just where you find them."

"You wait here on the lower side and I'll take the dogs out the strip in case the rabbit bolts across the upper hayfield." I told Bud. "More than likely the rabbit will spin around and try to get back to the vine patch." That's exactly what happened.

The dogs and I were only halfway out the grassy strip when the rabbit broke out into the lower hayfield and turned directly toward Bud. It was eating up the distance quickly when Bud's double went off. Grass and dirt kicked up behind the rabbit, which showed no sign of being hit.

### Same Results

Bud's second barrel showed the same results—and the rabbit ran over Bud's boot on the way to the vine tangle! Just goes to show you that finding them doesn't necessarily mean you're going to get them.

My most vivid example of rabbits being where you find them happened six or seven years ago. A friend, Joe Mikluscak, asked if I wanted to hunt rabbits on his aunt's farm in the mountains. Joe and I agreed we wouldn't





IT'S THE SHOOTING THAT gets talked about and bragged on, but most of a chuck shooter's time is devoted to searching distant terrain with binoculars.

# The Day We Found a "Flight" of Woodchucks

By Nick Sisley

**I**N SOME WAYS woodchuck hunting is like finding migratory woodcock—feast or famine. If you visit a bird cover on a day when a flight of long-billed timberdoodles has moved in, you, your dog and your scattergun are certainly going to enjoy some enviable action. But if the migratory times aren't in residence, and there are no local doodles in the haunt you've chosen, there are apt to be few bumps in the back of your favorite upland vest, if there are any at all.

The similarity with woodchuck shooting centers around how recently the hayfields have been cut—if at all. If the patch of timothy, alfalfa or clover

hasn't been mowed, you don't have a prayer for long-range varmint gunning action.

If the field was mowed only a few days earlier, and there has been no rain since, success in spotting chucks will be negligible. In fact, I've seen woodchucks "run" to leave a recently mowed field. They seem to know they're too exposed to riflemen with heavy-barreled ordnance that spits tiny bullets out on clothesline trajectories. Also, a



**A BUDDY TO spot the bullet's impact is a big help, for recoil sometimes makes it impossible for the shooter to see the results of his shot.**

set up rigid rests for our heavy rifles, then begin glassing. The top of this timothy heaven is rimmed by woodlands. This rim is maybe 600 yards out yonder. From our shooting position the woods are as close as 275 yards and 600-plus to the farthest point.

Trouble is, this mammoth field is mowed only once per year, so arriving at the right time—after it has been mowed but not until the grass has grown back several inches, but before the grass grows too high—well, as I said, it's a lot like hitting a woodcock cover at exactly the right time.

It was back in 1972, the October issue of the *GAME NEWS*, that I wrote "A Flight," the tale of my encounter with a tremendous flight of woodcock. In August 1985, Bob Cassidy and I arrived at the timothy field in question. We hoped for a "flight" of woodchucks, if you will. We weren't disappointed. Further, it was one of those days when we both were shooting well. Of course, Bob always shoots well. He's been a long-range chuck buff for several decades, and his battery of heavy stainless-steel barreled varmint rifles will make any student of this specialized shooting game sit up and take notice.

### **Deferred to Me**

Bob deferred to me for the first shot. The range was about 250. The chuck was peeking out of his hole, eyeballing our setup. Only his head and neck were showing. My stainless-steel barreled 25-06 Remington 40X prints its 100-grain Sierra bullets a tad high at 250, so I held the crosswires where the chuck's neck met the ground.

I squeezed carefully, allowing for no wind at all. The gun racked back slightly, blacking out the target momentarily. Before I could get the 16x Leupold scope back on the right spot, I

mowed field doesn't provide any succulent new growth for a chuck to grow fat on, at least until the ground has been sprinkled with a good rain.

So, arriving at a favorite chuck field at just the right time can be tricky. Unless, of course, we're talking about a field that is just outside your back door. The field I'm talking about here is a 3½-hour drive from my back door, however. Despite phone calls to the locals there, plus monitoring the weather patterns for that area via national weather maps, it's still tough to hit one of the many fields in this top woodchuck area just right.

Bob Cassidy and I had done it once. That was back around 1977. The field in question is huge, and it's sort of separated into two parts. The farmer invites us to pull our vehicle into the lane which leads to the first part of the field. Bob and I spread out blankets nearby,



heard the bullet's "whomp." Cassidy is usually noncommittal after one of my shots. He's a competitor, and sometimes I think he's afraid I'll shoot better than he will, though I never do. Anyway, I broke the silence "Well?"

"Direct hit."

Shortly, I spotted a chuck for him. By the time he had settled into a prone position behind his big gun, however, that whistle-pig had dropped down from his haunches and gone behind his mound to chomp the most succulent of the timothy around him. No matter. I had another chuck feeding in plain view, and quietly directed my partner to its exact location. The range was over 300 yards, but Bob drilled it through the ribcage as the chunky varmint was on its belly feeding. The rifle for that particular shot was one of Bob's favorites, a 6.5 built on the 270 Winchester case. He likes the ballistic coefficient of the 120-grain Nosler flat base bullet in this caliber, which gives good wind blocking ability and fine trajectory capabilities.

Cassidy's selection of the 270 case over the more often used 30-06 makes sense. The 30-06 works on max chamber pressures of 50,000 psi, while the 270 works on peak pressures of 54,000 psi. Thus Bob thinks the 270 case is a safer one if handloading to maximum velocities.

It wasn't that we didn't miss any shots that day. However, in long-range woodchuck hunting, there's missing, and there's "missing!" Once we start talking 400, 500 and more yards, missing becomes a matter of degree. If the rifleman can whizz a flat-shooting bullet within an inch of a chuck's ear at 543 paces, that's a great shot. If he misses by, say, 12 to 36 inches, the shot was poor. There was either a major error in range, wind, or trajectory judgment, or the shot was pulled way off the target—sloppy work!

Later in the afternoon, Cassidy made a truly great shot. I paced it off, mainly because I laid a chuck low almost adjacent to his, thus equally as long, less than 30 minutes later. The

actual number of long steps escapes me now, but it was in the neighborhood of 680—and these were long paces meant to come close to one yard each. Both of these chucks were hit in the chest, and well anchored, for they didn't move an inch after the shot. Only the familiar tail twitching ensued.

Bob and I sent an awful lot of bullets across that field that afternoon. We started shortly after noon, and we were still squeezing carefully in late afternoon. Around 5:30 the farmer came out to check with us, and to find out more about all the shooting commotion. He was anxious to determine our success, because his fields harbored so many chucks. Not only did they eat a significant percentage of his hay, but when he mowed this field one of his pieces of farm equipment occasionally plunged into an unseen chuck hole, often resulting in an expensive repair bill.

### One for the Farmer

Bob and I talked him into trying a shot. I glassed and found a chuck for him. Distance about 275. The farmer claimed he'd never shot a chuck at over 50 yards, nor with any rifle bigger than a 22 rimfire. Open sights, of course. We told him exactly where to hold, and he quickly sent the bullet true to the mark. I found him another chuck at similar range. He wanted to quit while he was ahead, but Bob and I insisted he try this one, too. When he bowled over his second chuck in a row, he was sort of excited—and most impressed with our equipment.

He insisted I ride his three-wheeler around to pick up the chucks we had shot. He was most pleased when I returned with quite a pile of the quarry. By quitting time Bob and I had had our

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For a Friend . . .



**BOB CASSIDY**, an expert at long range woodchuck shooting, matches his equipment to the job. Here he is using a bull-barrel 25-06 with 2-inch Unertl for a way-out-yonder shot.

fill of shooting. We stowed our gear and headed for the restaurant where we have our traditional thick steak after these shoots, thanking the Red Gods again for the chucks and the privilege to hunt them. That field had indeed provided us with a “flight” of woodchucks.

The next day the shooting was fully as good. We did, however, move around more. Over the course of the day I believe we shot over five different fields. At all of them the stage of hay growth was just right. We had hit it perfect. On two days running we had dented primer after primer. That meant I’d have to spend several evenings reloading all those 25-06 cases I emptied on that two-day trip for Pennsylvania’s top varmint trophy.

### EPILOGUE

Then there was the final woodchuck I shot in the 1985 season. The time was October. The main quarry for the day had been squirrel. The locale was southcentral Pennsylvania, noted for its abundance of big timber, much of it mast-producing oaks and shagbark hickories. This time I was carrying a Kleinguenther K22 topped with an 8x Leupold. My ammo was Winchester Super-Match, which regularly stayed well under an inch at 50 yards out of that rifle.

I had bagged five squirrels in the

early afternoon. The morning, dampened by a hard rain, hadn’t produced any action at all, however. Stalking up a draw which had produced many a squirrel in previous falls, I spotted a woodchuck. Actually, he spotted me first. Lumbering for his hole, he stopped, as this species is prone to do, two feet short of subterranean safety.

Knowing the limitations of my little gun, I still decided to try for this one. Holding well forward, I began my squeeze from the offhand position. The Kleinguenther spat like a pussy cat. The chuck never moved, except that his whole body went limp. I kept watching in the scope. Finally, his tail came up in a slow rise, followed by minimal twitching, before it relaxed for the last time. I paced off — 44 steps. The bullet had entered just forward of the critter’s left eye and exited behind the right ear. I hadn’t made a better shot in many a year — including that chuck I killed at . . . 680 paces the day of the “woodchuck flight!”

Nick Sisley is the author of *All About Varmint Hunting*, an excellent book about hunting woodchucks, prairie dogs, crows and foxes. He also gives in-depth information on varmint rifles. Autographed copies available from Impact, 509 1st St., Apollo, PA 15613. \$10.50 delivered.



# Black and Blue and Sweet All Over



By Bill Betts

**I** SUPPOSE everyone of my generation who grew up in rural Pennsylvania now entertains fond memories of berry picking. I know I do. In fact, as I rock back and forth here in the sleepy sunshine of the side porch, the old farm collie at my feet, the most vivid recollections of wild berry patches come to mind.

Blackberries, dewberries, red raspberries and black raspberries, thimbleberries, strawberries, gooseberries, elderberries—shades of red and pink, black, blue, and green—these drift across my memory, attended by all sorts of sweet sensations.

The wild gooseberries—not many to be sure, but oh how succulent—which grew along the stream that meandered behind our solitary schoolhouse; the dewberry vines which tangled low across the fields; blackberry brambles laden in late summer with luscious fruit; tiny wild strawberries, glowing vividly against the railroad cinders out of which their tender plants reached; the delicate pink thimbleberry appearing erratically among pokeberry and devil's club in the waste regions of abandoned stripmining sites; raspberries, red and black, for which we had to ward off the dapper brown thrasher and various greedy thrushes; and the purplish-black flat-topped clusters of

**HERE, PERCHED** not a foot from my right shoulder, at the drooping end of a river birch limb, was a catbird, abusing me something awful with an incessant chirping.

elderberries that we collected by the bushel and turned into wine and jelly and tasty pie.

Which of these is my childhood favorite? Well, none really, though each is precious, for I have yet to mention the berry I remember most fondly. My favorite? Well, yes, you have guessed it by now. It is the wild huckleberry. And it holds first place in my affections not only because it is such a sweet berry, but also because so many memorable experiences are associated with its picking.

## A Wee Thing

The huckleberry grew in profusion during those boyhood days in which I rambled over the wildest reaches of western Pennsylvania. It could be found in every mountain field and swamp in late summer. Of course, as everybody knows, the true huckleberry is a wee thing, and it takes a lot of picking to top off a two-quart bucket.

Still, what fun it is. And what rewards it returns.

I can remember trooping off to a





favorite patch, all of us vying to see who could produce the most fruit in the time we had. The most competitive naturally restricted the number they permitted themselves to relish during the picking. Technique was important, too. It was hard to decide whether to pick one-by-one, or by a discreet handful, in which the art was to avoid somehow the green ones.

One time—it was at a big patch on the Four-Mile Road near Elliott Park in Clearfield County—I “enjoyed” an experience I still recollect most vividly. By midday the four of us had collected several pailfuls. I had just exchanged a full tin for an empty lard can, and had made my way to a remote corner of the expansive field. A rocky outcropping bulged over the edge of a thick patch, and I could see berries galore. The field was swimming in sunshine as I sat down in the midst of some richly-laden bushes. Finishing with the berries closest, I bent one of the larger shrubs to get at the berries on the other side. There, draped over a tongue of granite and just beginning to coil its length into the mesmerizing strike-position, lay a black timber rattlesnake. The sensation that washed over me can best be described by a phrase from Emily Dickinson, whose lyric poems we had been studying in our country schoolhouse that spring. I was zero at the bone!

How I backed out of there I cannot explain. As I reflect on it now, I did not read any expression of fear in those beady eyes and certainly no meanness. I believe it was with something akin to curiosity, a sort of puzzled study, that he was regarding me. As if he were simply wondering what to make of this alien come to disturb his dog-day sun bath.

Less of a shock to my system was the experience provided by another dusky fellow, at another time and in another place. I had been working the borders of a swamp in which the huckleberry bushes were somewhat scattered, competing as they were for sunshine among stands of alder and varieties of haw-

thorne. What a racket, all of a sudden. And here, perched not a foot from my right shoulder, at the drooping end of a river birch limb, was a catbird, abusing me something awful. His liquid black eyes were piercing, and against his slaty gray I could plainly see the black cap and the rusty undertail. The chirping, a din in my ear, required no perceptible movement of his throat or bill, but from time to time he interrupted his chirping to open wide his bill and emit the characteristic mewing call for which he is named.

### **Bunch to Bunch**

All of this continued as I made my way from one bunch of bushes to another, the bird following at a carelessly close distance. I could hardly ignore him, though I kept at my berries. What was it, I wondered. Did this bird have a nest nearby? Were there young ones about? In August? Or had he assumed exclusive rights to these berries? In any case, I got again the strong impression that I was an intruder here. I was made acutely conscious of my rights, or of the limits to my rights. I picked some berries, yes, but I left that little black fellow enough to see him through the summer.

Less of a shock than either of these two experiences, but quite memorable nonetheless, was another study in shades of black.

This experience occurred in a swampy place too. I had been helping on the haywagons all morning and (after a lunch-bucket of peanut butter sandwiches and huckleberry pie) all afternoon as well. It was late in the day when I found myself in what we called the willow woods, a secluded lowland confined on three sides by steep slopes. As I made my way across the marshy bottom and began the ascent which would bring me to the huckleberry patch, I was aware that the woods birds had moved into their characteristic evening activity. Not that at this time of year there was to be heard anything like the concert that excites the spring woods in the twilight hours.



**THERE, draped over a tongue of granite and just beginning to coil its length into the mesmerizing strike-position, lay a black timber rattlesnake.**

Lots of tree swallows and phoebes and kingbirds were buzzing around, and I could make out a little green heron posed statue-like in the bog; but only two songsters addressed the gentle silence. These I recognized at once. From somewhere close to the ground, far back in the shadows, came the loud, ringing *teacher-teacher-TEACHER* of the shy ovenbird; and from those same recesses of the marsh, strangely out of season, floated the beautifully clear flute-like notes of the wood thrush.

But I was not prepared for what came next.

Just as I reached the top of the knoll at which the open land and the huckleberry bushes began, I perceived, some distance away and pretty much in the middle of the field, an amorphous blackness sprawled atop a cluster of berry bushes. This, no one had to tell me, was a black bear, the first I had ever seen. Thrilled, I froze, and then slowly subsided toward the ground until I could just peer over the ridge. I could not see all that well, but it seemed that the bear, a ponderous creature, was lying flat on the bushtops while reaching out with a paw to pull berry branches toward her ready

mouth. Vanished now was all interest in berry picking. Huckleberries I had been picking for three weeks, and for many summers before. A black bear I had never seen.

Natty Bumppo, Simon Kenton and Henry Ware, I now became. To get closer, I stole along the brushy edge of the clearing, inching through the evening shadows. The great bear nibbled at the huckleberry shoots; I nibbled away at the distance. After a long time I was as near as I dared.

I had just reached my vantage point when I became aware of another rum-pus. Two cubs, not all that much bigger than the lard tins we used for collecting berries, were romping on a little hump out in the field. One was coal-black, like its mother, and the other was a reddish-brown, like a chestnut stump I had passed in the swamp.

What comic creatures they were, batting each other around and nosing through mounds of moss and anthills. By and by one came upon what looked to me like the fragment of a cornstalk, probably dragged up here from our forest turkey feeder by a coon. He sat on the ground, as a woodchuck will do, or a gray squirrel, like a shiny black coffee pot, held the stalk before his nose with his forepaws and examined it quizzically. Then in disgust, or bafflement, he flung it at his brother and waddled off, flatfooted and bowlegged, toward an island of aspens and yellow birch, in search, I suppose, of some new diversion.

### Into the Swamp

I studied the family until, with the sun now below the far ridge, the sow suddenly bolted into a half-gallop and led the two wee ones into the darkening swamp. And home I trudged, empty lard tin swaying from my side. Bears like huckleberries too, I mused. I wondered just how many of the tiny berries would be required to register any in-road on the bruin's appetite.

Later I was to discover that one species of huckleberry is actually named



for the black bear. It is called simply the bear huckleberry (*Gaylussacia ursina*). It is a more slender bush than my huckleberry's, it grows less than a foot high, and its reddish-black berries are not really what we would consider palatable. But it thrives in the woodlands of the southeastern United States, and must be counted a respectable member of the family.

### Related Species

A number of species and related species, like the dangleberry (*Gaylussacia frondosa*) and the he-huckleberry (*Lyonia ligustrina*), are to be found in our part of the country; but my huckleberry is the black huckleberry (*Gaylussacia baccata*). Farm folk used to call it the whortleberry, and we youngsters often used the appellation bilberry, but huckleberry is the popular name, and the best name, and the right name, for this uncommon common berry.

It is not to be confused with the wild blueberry, and certainly not with the cultivated blueberry. My huckleberry can easily be distinguished from these imposters. In the first place, my black huckleberry fruit contains ten (you can count them) bony, seedlike nutlets, whereas blueberry fruits contain many more, much smaller, seeds. Besides, blueberry leaves are not adorned with the pretty resinous spots that checker the undersides of huckleberry leaves.

The wild black huckleberry has it all over the blueberry when it comes to taste. Some claim the wild blueberry has been much improved by breeding and cultivation, but that's been a matter of increasing the size and yield, I think. I don't see how we can ever bring the blueberry up to the quality of the wild black huckleberry.

Maybe some of the wild black huckleberry's sweet taste comes from the experience of picking it. But when you sit down to a dish of bright blue huckleberries swimming in farm-fresh cream, or to a plate of wild-huckleberry pancakes adrift in last spring's maple syrup, or to huckleberry muffins topped with newly churned butter, or

## GAMEcooking Tips

### Easy Venison Mulligan

- 1½ pounds venison, cubed\*
- 1 medium onion, chopped
- 1 cup diced celery, including leaves
- 1 tbsp. margarine
- ½ cup raw wild rice
- 1 can golden mushroom soup
- 1 can cream of chicken soup
- 2 cups fresh mushrooms, washed and sliced
- 5 tsp. soy sauce
- 1 cup frozen or fresh peas
- 1 cup raw carrots
- 1 cup dry white vermouth

Brown venison, onion, and celery in butter. Mix together all remaining ingredients. Add to casserole, and bake uncovered at 300° two hours, or until meat and rice are tender. Serves 4.

\* Antelope, Moose or Caribou may be substituted

—FROM WILD GAME COOKERY  
BY CAROL VANCE WARY

to the kind of huckleberry pie that I was wont to carry in my lunch basket, well . . .

### Emerson and Thoreau

Ralph Waldo Emerson once complained about his good friend and disciple Henry David Thoreau, saying Henry should be "engineering for all humanity" rather than to be content with the command of a huckleberry expedition. Emerson's philosophic excursions and his happy turns of phrase I have long applauded, and he was mostly right, I think, in what he perceived, especially in his observations of nature, but surely he was wrong in this. I don't know what could have been more richly rewarding to Thoreau and to those in his charge than picking huckleberries on the hills outside Concord, Massachusetts. Except, possibly, trooping up into the mountain meadows of western Pennsylvania.





BOB  
SOPCHIAL



# Birth of a Grouse Hunter

By Robert Evans

**T**HE BOY awoke eager to start the day. His father had promised to take him grouse hunting. This was a first for the boy. He had shot some rabbits and squirrels, but grouse were special — at least that's what his father had always said.

"What's so special about grouse?" the boy had asked. "It's just a bird like any other, right?"

His father couldn't come up with a satisfactory answer. How can you explain a love affair involving a smallish brown bird? The shooting wasn't the important thing. It was the bird itself, and the dogs, the guns, and the men associated with it. How can you convey a feeling secondhand? The pleasure of a cool fall day following a favorite four-legged friend through the woods, and the feel of a favorite shotgun cradled in your arms? There was no way to explain it. The boy would have to experience it himself.

The morning started with a hearty hunter's breakfast. Like most mothers, the boy's wanted to be sure her men were taken care of.

"You can't hunt all day without a good breakfast," she always told them. She had, of course, also packed a lunch large enough for six hunters and their dogs.

When breakfast was finished, the boy's father placed the lunch and some spare clothing in the back of the pickup. That little chore finished, he came inside to get the guns. He unlocked the gun cabinet and took his down — a 20-gauge Parker, DHE grade. It had been his father's gun, and he hoped to pass it on to his son some day. He remembered how thrilled he had been when it had been given to him. His father had said, "This here gun has been pretty good to me. It'll be

good to you, too, if ya' take care of it. I trust you" He hadn't known that would be the last year his father would be around. Life could be cruel at times. But the circumstances made the Parker more than a gun; it was a symbol of the love and trust between a father and a son.

The boy came in just then and caught his father daydreaming with the gun. "Pap shot a lot of grouse with that gun, I'll bet."

"A few," his father replied. "Your Pap was a special man. He really didn't worry too much about how many he shot. In fact, he'd often stop hunting long before the season ended."

The boy didn't say anything, but he thought that was silly. Heck, if you could hunt until late January, why would you stop earlier?

The father handed the boy his shotgun — a single-shot 20-gauge. The boy hoped he'd get a new one before too long. You couldn't get many rabbits or squirrels with only one shot at a time, and how would he be able to drop two grouse if they flushed together? Even so he figured it wouldn't take him long to get his limit. After all, he knew he was a good shot.

## The Next Task

With the cased guns in the back of the truck, the next task was to get the dogs. There were two this year, old Jake, an orange belton setter, and Bo, a year-old Brittany. Bo had been the boy's Christmas present. He was proud of the dog. He had trained him himself, using pigeons from the barn. Bo, like the boy, hadn't hunted grouse before.

Jake was the father's dog. He was eleven, hard of hearing, and he suffered the little aches and pains of growing older. The old dog had a lot of

heart, though, and the boy dreaded the day that Jake would leave them. It would be tough to go hunting without him.

Both dogs were placed in their travel crates and then they were all on their way.

"The first stop will be the Spring Cover," the father said. "It usually holds a few birds."

The boy could feel the excitement building in his father. The enthusiasm was catching. The boy felt excited, too.

### The Spring Cover

They soon arrived at the Spring Cover, a dense patch of aspens and greenbriars with a pile of stones nearby. The stones were all that remained of a spring which had once flowed freely.

Once the truck had stopped they could hear the whine of old Jake and Bo's excited yip. The enthusiasm was catching between the dogs too.

The dogs were released from their crates and allowed to burn off a little of their excess energy. The father noticed that Jake burned off his energy much faster than Bo, and that saddened him. Growing old seemed so unfair at times.

The hunters attached bells to the dogs, uncased the guns and headed to the cover.

"Are grouse hard to hit?" the boy asked.

"They can be at times. In fact, most of the time."

The boy thought about that awhile. He doubted the statement. After all, he was a good shot.

"Grouse have an uncanny knack of putting a tree between you and them when they flush. The dogs should help a little if the birds aren't too jumpy. Sometimes they bump 'em."

Get bumped — ha! the boy thought. Bo was staunch, he was sure of that.

When they got near the cover they loaded their guns. The boy immediately got his first lesson — grouse covers are thick! He scratched and clawed his way through as best as he could, recoiling as greenbriars cut his cheeks and twigs snapped against cold ears. This sure didn't seem like much fun.

The boy's father suddenly yelled, "Point," and the boy looked up to see Jake standing motionless about 35 yards away, head tilted slightly to the left. At the same time he saw Bo heading in Jake's direction. He had trained the young dog to back another's point, but was disappointed as Bo drove past the older dog and the grouse vanished in a roar of wings, offering no shot.

"Bo! Bad dog!" the boy shouted.

"Bo's young yet. It takes a while for a dog to catch on, and some dogs never do. Bo will come around. Just be a little patient."

The father had marked the grouse's flight. "I think he headed for those low pines to our left. Let's see if we can find him."

They headed toward the pines. Bo was ahead of Jake, who seemed to be slowing down a bit. At the pines, Bo, moving stiff-legged, locked up. "Point!" the boy said, finding it hard to conceal his pride and excitement.

"I'll swing toward the right and walk in," his father said. "If the bird flushes, you should get some shooting out the left side."

Gun at port arms, the boy approached Bo. He was ready, or so he thought. Before his father could get into position, the grouse flushed. At the sound of the wings, the boy's gun started to come up. The problem was, the bird had flushed from the tree, not the ground. The roar of wings was the only evidence of the bird's existence.

"Two flushes and no shooting," the boy muttered.

"I told you they can be tough," the father replied.

They finished the cover without another flush.

Give

**GAME NEWS**

*To a Friend . . .*



"Let's head over to the Broken Wheel Cover," the father said.

They put the dogs and guns in the truck and headed out. The boy was frustrated. He thought the birds weren't fair. They didn't give anyone a chance. If he could get a shot at one, he'd show them.

They got to the Broken Wheel Cover, a cover very similar to the Spring Cover. "Where's the broken wheel?" the boy asked.

"I don't rightly know," the father answered. "It's always been called Broken Wheel, so that's what I know it as."

The dogs were put down and the two hunters got their guns and headed in. They hadn't gone a dozen steps before Bo locked on point at the base of an aspen. Jake backed beautifully.

"Point!" the boy yelled.

"Walk in and try for the shot."

Gun ready, the boy walked in past the dogs. Nothing happened. He was just ready to say something to that effect when the grouse exploded right from his feet. Totally off guard, he missed a hurried shot. The bird banked sharply and passed in front of the boy's father who dropped it cleanly.

"Dead bird, Jake."

The old dog quartered across, found the bird's scent and slowed to a point. Jake then went in, picked up the bird and delivered it.

"Good boy, Jake" the father said. He examined the bird and identified it as a young male before placing it in his game bag.

The boy's face showed disappointment. "I can't believe I missed."

"Don't worry about it, son. They sure scare you sometimes. You'll connect soon enough."

They pushed on through the cover. As they worked out of a patch of green-briars, they noticed Bo was missing. Looking uphill to their left, they saw him on point near some hemlocks. Jake hurried over to back him up.



**BO BROKE from his point and found the bird. He picked it up and delivered it to the boy—a perfect retrieve. The boy couldn't have been more proud.**

"Go ahead, son, take your time now."

The boy eased in, gun ready, watchful. The bird flushed to the right. The gun came up almost by itself. At the shot the bird folded.

"I got him!"

"Nice going, son!"

"Dead bird, Bo—fetch!"

Bo broke his point and found the bird. He picked it up and delivered it to the boy—a perfect retrieve. The boy couldn't have been more proud. His father came over to see his son's first grouse and showed him how to tell its sex. The boy admired the beautiful redphase cock, and then placed it in his game bag.

The two hunters headed back toward the truck in silence. After the dogs had been placed in their cages and the guns cased and put away, the boy said, "You know, Dad, these birds really are special."

"They sure are, son." The father smiled. A grouse hunter had been born.



THE Game Commission's 1986 exhibit featuring the golden anniversary of the agency's Farm Game Cooperative Program made an attractive conference display.

# Professional Resource Management Dream or Reality

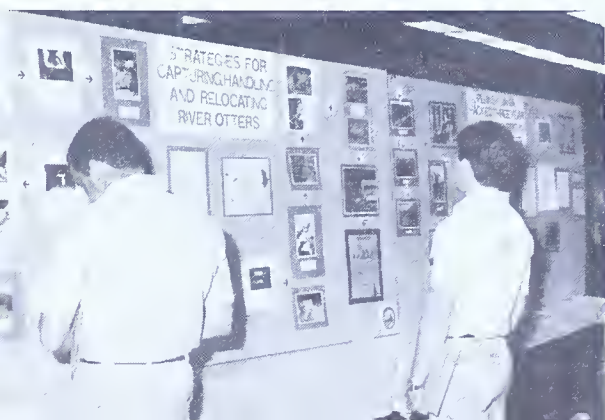
REGISTERING the 724 participants—no easy task—was accomplished by computer specialists from both agencies.



ED GDOSKY, center, Luzerne County DGP, received the Fish and Wildlife Law Enforcement Award from the Northeast Conservation Law Enforcement Chiefs Association. Left is PGC Executive Director Pete Duncan; right is Ernie Wilkinson, the association's president.



POSTERS illustrating the procedures and results of 26 scientific fish and wildlife projects were displayed.



A TOUR of the Game Commission's Middle Creek Wildlife Management Area was among several outdoor activities offered attendees.







HERSHEY  
PENNSYLVANIA



DAN POOLE, President of the Wildlife Management Institute, presented the conference keynote address.

*Pennsylvania's Game and Fish Com-  
missions hosted this year's Northeast  
and Wildlife Conference, an  
annual meeting of state, federal and  
Canadian natural resource manage-  
ment professionals. The Conference  
was held at the Hershey Convention  
Center and consisted primarily of sep-  
arate technical sessions for wildlife  
biologists, fisheries specialists, law  
enforcement officers, information and  
education personnel, and conserva-  
tion engineers. Here are a few scenes  
that transpired during the group's  
five days in "Chocolate Town."*



A TOUR of the Pennsylvania Public Television Net-  
work's production studios in Hershey was offered  
for information and education specialists.

Photos by Bob Haines

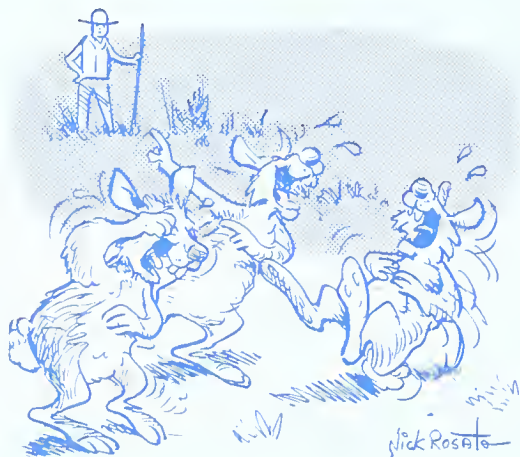
A BUFFET banquet, raffle, and musical entertainment at the Hershey Convention Center  
rounded out the conference.



# FIELD NOTES

## Comin' & Goin'

**JUNIATA COUNTY**—February certainly was a month of transition for me. The beginning of the month found me patrolling Montour and northern Northumberland counties, but the end of the month found me in Juniata County. Transfers from one district to another can be bad enough, but transferring from one region to another, as I did, can be much more difficult. I made it through this transition with little difficulty, though, thanks to the secretaries, who made the move go so smoothly for me. I will definitely miss Mary, Marcia, and Brenda of the Northeast Office, but I am really looking forward to working with Carol, Nancy and Kim of the Southcentral Office. My hat is off to all these ladies for the help, kindness and encouragement they have given me. —DGP Dan Marks, Clark, Mifflintown.



## Laughingstock

Somerset's Dick King claims rabbits don't bother his garden. Dick says his garden looks so bad that the rabbits just sit at the edge and laugh. —LMO Barry K. Ray, Sr., Rockwood.

## Hard Times

**LYCOMING COUNTY**—Last winter I watched a red fox mousing in a cornstubble field. That fox worked hard for more than twenty minutes before he caught a mouse. He had no sooner swallowed that bite size piece of food before he was back at it again. This, in that bleak winter landscape, made me realize the daily struggle wildlife faces. —DGP Dan Marks, Proctor.

## Over Rated

**TIOGA COUNTY**—I occasionally hear reports about hawks flying away with poultry and other domestic animals. A couple of months ago, however, I watched a red-tailed hawk try to carry off a rabbit. The hawk could lift that rabbit no more than three inches, and it couldn't carry it for more than a few seconds. After dropping it repeatedly, the hawk began feeding on it where it lay, and it remained near it for the entire day. This incident really makes me wonder about those reports of hawks carrying off chickens and guinea hens. —DGP John Snyder, Wellsboro.

## Do It Within 24 Hrs.

**MONTGOMERY COUNTY**—While Albert Duffield, Hatboro, was loading a roadkilled deer onto his vehicle, he saw a buck with its hind leg tangled in the top two wires of a highway fence. With the aid of a crowbar and plenty of elbow grease, Al was able to release the buck, certainly saving its life. I learned of this from Albert when he contacted me for a permit to possess the roadkill. —DGP William Wasserman, Montgomeryville.



## Good Start

**JEFFERSON COUNTY**—As the newly appointed game protector here, I was making my way around the district and getting to know the residents. When I introduced myself to one man, he responded, “Oh, so you’re the new bluebird man.” I was flattered, and I attributed this comment to the deputies who have established bluebird trails throughout the county and the positive public opinion generated through these activities. I hope to continue Working Together for Wildlife here—and I’d much rather be known as the “bluebird man” than a few other names I have heard game protectors called.—DGP Don Chaybin, Brookville.

## Reinforcements

**INDIANA COUNTY**—I would like to thank everyone, especially the deputy game protectors, who helped me during the past year. Having been responsible for the entire county, I greatly appreciate all the assistance. And with the graduation of the 19th class, I was probably the one most anxious to welcome Art Hamley as the new district officer for the northern portion of the county. I feel like the cavalry just came to the rescue.—DGP Mel Schake, Indiana.

## Winter Visitors

On a bright windy day in late February I witnessed a rare sight. I was checking woodland edge cuttings on the Blue Marsh Area, Berks County, when I started flushing some medium size birds from the grass a short distance away. Soon, at least twelve were in the air, coursing over the field. After studying them with my binoculars and referring to my bird book, I discovered I was observing some shorteared owls hunting for voles.—LMS Barry D. Jones, New Ringgold.



## Unique

**WESTMORELAND COUNTY**—I received a call from a woman who had a unique problem. She said there was a skunk with antlers in the wall of her house. Upon investigation, I found that a skunk had found a set of discarded antlers and was trying to drag them through an opening in the side of the house. I was relieved to learn it was neither an abnormal skunk nor a smelly black and white deer.—DGP Dennis L. Neideigh, Greensburg.

## Cavity Nesters

**BEDFORD COUNTY**—I recently examined SGL 73 for gypsy moth damage. While making note of the many large dead oaks, I got to thinking about the large stands of defoliated trees. I did note one benefit from this infestation. These dead trees and snags were home to large numbers of pileated woodpeckers, red-headed woodpeckers, flickers, and—along the edges—bluebirds.—DGP Jim Trombetto, Everett.

## Made His Day

**SOMERSET COUNTY**—I received the following note from a Cub Scout from the Shanksville-Indian Lake area. “Deer Officer Jenkins, I liked the movies. They were very nice. I was home at 5:00. Time flies when you’re having fun. Love, Henry Skone.”—DGP Dan Jenkins, Somerset.



### Tempting Fate

#### SUSQUEHANNA COUNTY—

When Bob Tiffany, Montrose, saw seven deer standing on the running deer target range of the Central Conservation Club in South Montrose, he couldn't decide whether the targets were so lifelike that they attracted the deer, or if the deer knew all about the club members' shooting abilities.—DGP Charles J. Arcovitch, Kingsley.

### Naturally

**CAMBRIA COUNTY**—Each year well-meaning persons find what they think to be abandoned fawns. Actually, it's natural for young fawns to be alone, as their mothers leave them behind while they go to feed. But they repeatedly return during the day to care for their young. If you find a fawn, do not disturb it. Please leave all wild babies in the woods.—DGP Richard F. Weaver, Johnstown.

### Our Home, Too

**CLEARFIELD COUNTY**—While you are out this summer, enjoying the millions of acres of public lands we have, please do not litter. In fact, it wouldn't hurt any of us to pick up some of the litter left by others. Remember, this is the home of our wildlife. Let's treat it with respect.—DGP Colleen Shannon.

### Head Start

Each spring the Game Commission provides Farm Game and Safety Zone cooperators and other groups with seedlings to be planted for wildlife. Many factors influence the survival rates of these seedlings, but the most important seems to be competition from other plants. One cooperator solved this problem by planting his seedlings in a garden for a year before putting them out. By keeping the seedlings well fed and free of surrounding weeds, they grew tremendously. After a year in the garden, his black locust seedlings were over seven feet tall, the Maackii honeysuckle over two feet, Japanese crabapple almost three feet tall, and Chinese Chestnut about two feet.—LMO Jim Deniker, Sandy Lake



### Bounced

**WAYNE COUNTY**—A Hamlin resident was watching a group of turkeys feeding behind his home when he noticed several squirrels join in. One of the hens took exception to sharing her meal with one furry visitor, however. When a squirrel tried to feed right in front of her, she picked him up in her beak and tossed him for a considerable distance. The squirrel, stunned, righted itself and left. He didn't return until the restaurant was not quite so crowded.—DGP Donald R. Schauer, Honesdale.



## GAME NEWS

Over the years I've received requests for information from many areas but I'm beginning to wonder where some of these people get my name. I just sent a packet of information to Cienfuegos, Cuba. — LMO R. B. Belding, Waynesburg.

### Good News Travels Fast

**WARREN COUNTY**—I moved to Tidioute several days before officially starting my new position here. The first evening in our newly rented house, we were surprised to hear a knock at the door. It was a town resident reporting he'd just hit a deer with his car. While hopelessly searching for a pen and paper amid all the misplaced furniture and boxes, I asked how he knew I was here. He replied, "The word is all over town." — DGP Barry Zaffuto, Tidioute.

### Good Year

**LUZERNE COUNTY**—Francy Milot, West Hazelton, used eight boxes of shells to bag 22 grouse in 1985. He credits good dog work and persistence for his success. — DGP Robert W. Nolf, Conyngham.

### Double Duty

**POTTER COUNTY**—From February through May we record the ages of roadkilled does, along with the number and sex of the fawns they're carrying. This is used to calculate productivity rates. Although I hardly consider this among my most glamorous responsibilities, I was pleasantly surprised after finishing this chore in February. I saw a mature golden eagle come in and begin feasting on a carcass I had just disposed of. This particular roadkill served dual purposes; it provided information for our deer management program, and sustenance for one of our more endangered creatures. — DGP Ron Clouser, Galeton.

## Our National Emblem

**CHESTER COUNTY**—I'm rather proud of how well our two-year-old son Eric can identify wildlife. With just a little coaching, he's able to recognize many common species. After a recent trip to a local farm market, however, I think it's time to crack the books again. As he and my wife approached a booth where live poultry was being sold, my wife asked Eric to identify a white-headed, brown bodied barn pigeon which was on display. His answer, without hesitation, was "Eagle". Maybe it was the dwarf variety? — DGP Keith P. Sanford, Coatesville.

### 2nd Time, Personally

**VENANGO COUNTY**—While a beaver trapper was being cited for setting traps within ten feet of a dam, he told the arresting game protector that he knew me personally. When the officer called me I explained that I had personally arrested the man for the same charge, and had personally tagged some of his legally taken beaver. — DGP Len Hribar, Oil City.



### Taken For Granted

**CLEARFIELD COUNTY**—Last winter a man wanted me to remove a ring-necked pheasant from his property because he felt it was eating more than its fair share at his bird feeder. — DGP Don Zimmerman, Drifting.



## Open Houses

I find red-winged blackbirds in duck nests; deer mice, tree swallows and wrens in our bluebird boxes; and screech owls and squirrels in wood duck boxes. Truly, there is no housing discrimination in the units constructed by our Food and Cover Crops. — LMO Stephen L. Opet, Tamaqua.

## Year Round

**BRADFORD COUNTY**—I have noticed in recent years that more and more hikers, snowshoers and cross-country skiers are taking advantage of Game Lands. I think it's great that more people are discovering and enjoying public lands. — DGP A. Dean Rockwell, Sayre.

## Calculated Precision

**MIFFLIN COUNTY**—While working at the Eastern Sports and Outdoors Show, an individual asked me if the Game Commission has any guides for identifying waterfowl. I showed him "Ducks At A Distance", a booklet we sell for \$1. While he was paying for it, his buddy laughed, and said, "Do you have anything that tells how to hit 'em?" We don't have anything like that, so I let them in on a personal secret. I told them I always lead the first duck by about 10 feet, shoot, and then hope the last duck falls. — DGP Tim Marks, Milroy.

## So Long, Jim

**ALLEGHENY COUNTY**—On Saturday, November 9, 1985, this county lost an outstanding conservationist. Many friends and acquaintances knew him only as "Mr. Game Commissioner." He was a deputy game protector and farm game manager, and had served as acting district game protector for a time. When I first came to this county 15 years ago, he took me under his wing and introduced me to literally thousands of farmers, hunters, sportsmen, and other folks. He showed me every back road and the best places to have coffee. He introduced me to state, county, city, township and part-time police officers, and he pointed out the fellow I might have trouble with in the field. He knew where to get fresh rolls and bread, and the best fields for arrowheads. He really did not care for hunting, but shooting pigeons was a must. All in all, he was one heck of a "game warden." Here's to you, Jim Way, Mr. Game Commissioner. — DGP S. E. Lockerman, Pittsburgh.

## Contradictory

I had just read an article that said there were no rabbits left and that the Game Commission should eliminate the extended season, when I received a call from a hunter who wanted to know why we can't hunt rabbits until March because there are so many of them. — IES B. K. Moore, Saltsburg.

## Just Look

**CRAWFORD COUNTY**—At this time of year we can enjoy an abundance of wildlife due to the influx of newborns into the populations. Keep in mind that these are wild animals and as such they should not be handled. Look and enjoy, but keep your distance and don't touch. — DGP Rob Criswell, Meadville.



# Wildlife Conservation Awards, 1985



**Scott Anderson**  
New Berlin



**Dwayne Zimmerman**  
Mifflinburg



**Ron Freemer**  
Brockway

**S**COTT L. ANDERSON, of New Berlin, took top honors in the 1985 FFA Wildlife Habitat Development contest. Scott was a junior at Mifflinburg High School when working on his project.

Dwayne Zimmerman, RD 1, Mifflinburg, who also attends Mifflinburg High, was the second-place winner. Third place went to Ron Freemer of Brockway.

Anderson's projects included establishing a bluebird trail, raising ring-necks for a sportsmen's club, attending conservation leadership schools and wildlife seminars, making edge cuttings and clearings for wildlife, building brushpiles, planting trees, and developing a radio program on WWMC.

Anderson is active in the Buffalo

Valley Sportsmen's Club and chairman of the Conservation Committee in FFA. He hopes to earn a university degree in wildlife science and pursue a career as a wildlife biologist.

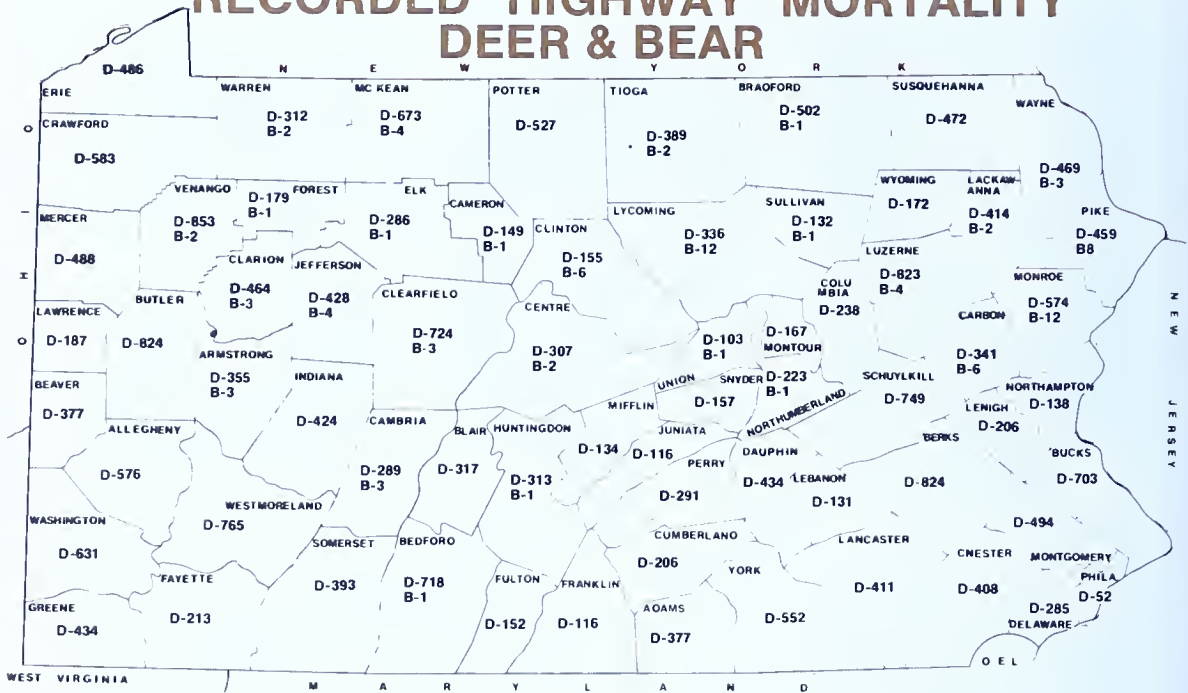
Zimmerman and Freemer worked at similar projects, including pheasant and trout stocking, construction of bird feeders and bluebird boxes, setting up wildlife displays at school, planting trees, stocking snowshoe hares from Canada, browse cutting, apple tree pruning, and deer and rabbit surveys.

## Co-Sponsors

The Pennsylvania Game Commission and the Pennsylvania Department of Education co-sponsor this competition. It is open to any vocational-agricultural student in the state. Students set up work plans in conservation, land management, marsh and stream development, firearms safety, etc. These plans must be approved by the student's Vo-Ag area advisor and teacher and the local game protector. Game Commission representatives and Department of Education personnel inspect the projects. Judging is based on the quality of work completed, and may include comparing the area with photos taken before work started. Prize money of \$1000 is divided among the winners.



# 1985 RECORDED HIGHWAY MORTALITY DEER & BEAR

**DEER (SYMBOL-D)**

HIGHWAY	25,180
ILLEGALS	3,454
CROP DAMAGE	928
DOGS	364
OTHER	669

**BEAR (SYMBOL-B)**

HIGHWAY	90
ILLEGALS	19
CROP DAMAGE	21
DOGS	0
OTHER	7

TOTAL DEER MORTALITY 31,595

TOTAL BEAR MORTALITY 137

AS THIS MAP shows, a significant number of Pennsylvania's big game animals die each year on the state's highways—more than hunters take in a number of states. Such losses are unfortunate, but perhaps to some extent inevitable when deer and bear populations are so large and there are so many vehicles on the roads. All drivers are advised to drive with caution in areas of high deer density.

## Books in Brief...

(Order from publisher, not from Game Commission)

**Longrifles of Pennsylvania, Jefferson, Clarion and Elk Counties**, by Russell E. Harriger, George Shumway: Publisher, RD 7, Box 388B, York, PA 17402, 262 pp., large format, \$40 plus tax and shipping. This, the first in Shumway's Longrifles Series, which is intended to cover every county in the state, is a most impressive volume. Hop Harriger spent over ten years researching it, and a year in the writing. "I have a minor case of black lung from the dust on courthouse records," he told me. "Perhaps the most satisfaction came from setting the records straight on the great marksman and riflesmith Horace Warner, and clearing up the Sherry mess created by Henry Davis and compounded by Ned Roberts." Such material will grab anyone who is seriously interested in longrifles. There is much more: detailed information on forty-eight gunsmiths from these north-western Pennsylvania counties—personal family facts as well as business situations; quotes from their journals and ledgers; hundreds of photos (rifles, individuals, maps, scenes), and much more contemporary material. There's no doubt this is the definitive work on longrifles on these counties. If following volumes equal it, the Longrifle Series will hold a valuable niche in Pennsylvania's history.



# Archers Break 1982 Record

**S**HARING the general success of Pennsylvania's deer hunters, archers have established a new all-time harvest record, and black powder enthusiasts have dramatically improved on the 1984 flintlock harvest, according to figures released by the Game Commission.

Archers filed cards on 7467 whitetails and flintlock hunters reported another 5354. The previous all-time high for archers was set in 1982, when bow hunters reported taking 7264 whitetails. The record flintlock harvest occurred in 1981, when 8246 animals were bagged.

Commenting on the 1985 figures, Game Management Bureau Director Dale Sheffer noted, "These harvests represent sizable increases over 1984, in spite of the decline in archery and muzzleloader license sales. Although sales figures are incomplete, it appears about 32,000 fewer archery stamps were sold, and flintlock licenses are off about 9000.

"My only thoughts on this seeming paradox are that better deer hunters are concentrating on primitive sporting arms. As a result, it takes more licenses to harvest a deer during the antlerless season than it did before," said Sheffer.

He went on to point out that last year flintlock hunters had a nine-day season following Christmas. In 1984, the season was only four days. "Nevertheless, our decision several years ago to require flintlock hunters to choose between a muzzleloader and an antlerless license has slowed the 'uncontrolled' harvest. It actually permits more persons to hunt than was the case previously," he said.

While archers established a new record, Sheffer said only 3112 were antlerless deer. On the other hand, flintlockers reported taking 4970.



**HENRY GEHMAN**, of Salfordville, took his first buck with a bow in Susquehanna County—and a nice 10-point it was. Many longtime hunters have never been this fortunate.

Sheffer pointed out, "Uncontrolled harvests of antlerless deer are a major problem in the Commission's overall deer management program. Herd managers must work around 'unknowns,'—it has to be done after-the-fact, and corrections must be made a year late."

Archers were most successful last year in Berks County, reporting 376 whitetails. Other leading archery counties were Potter, 323; Butler, 250; Bradford, 249; and Tioga, 236. Leaders in flintlock harvest were Schuylkill, 303; Luzerne, 264; Venango, 255; Somerset 224; and Butler, 196. A map in the June GAME NEWS gave a complete breakdown on kills by county.

# The President's Commission on Americans Outdoors

By Lamar Alexander

Governor of Tennessee

**T**HE JOB OF the President's Commission on Americans Outdoors is to look ahead to the year 2000 and beyond, and answer two basic questions:

1. What will Americans want to do outdoors?
2. How can we best make sure they have appropriate places to do it?

In many respects the task President Reagan gave the commission is similar to the charge Congress gave the Outdoor Recreational Resources Review Commission (ORRRC) twenty-five years ago. That first commission studied outdoor recreation from 1958 to 1962, and recommended national policies to preserve opportunities for Americans' recreation in the open air.

Laurance Rockefeller chaired the commission then. It was a fifteen-member body that included eight members of Congress and six other distinguished Americans. The work of that commission was monumental in two respects. First, the commission recommended that we look at outdoor recreation, whether in the national parks or our own backyard, in a comprehensive way—and the commission report provided a good blueprint for how such future reports should be written. Four such reports were written between the 1962 Commission report and 1979.

Second, Congress adopted the most important recommendations of the Rockefeller Commission, creating the National Wilderness System, the Wild

and Scenic Rivers System, the Bureau of Outdoor Recreation, and the Land and Water Conservation Fund. By itself, the Land and Water Conservation Fund has funneled more than \$3 billion of federal money into states on a "matching grant" basis. This has produced more than 30,000 projects to acquire and develop various recreation projects, with a combined state/federal investment of more than \$6 billion since 1965.

Our assignment today at the President's Commission on Americans Outdoors similarly will require a comprehensive review of outdoor recreation, including assessments of how well the federal laws proposed by the Rockefeller Commission work.

But in some other important respects our task is much different. For example, by law the first commission did not set out to study recreation in the cities; President Reagan specifically designated urban recreation as one of our study topics.

## Important Difference

Perhaps the most important difference between the Rockefeller Commission and this commission is that we have almost a quarter-century of experience with the recommendations made by that group—we know how well some of that body's proposals worked.

Some members of the first commission were among those who said it is time for a second, broader look.



Shortly before he died, the late Sen. Henry Jackson of Washington, the last commission member to serve in Congress, called for such a new study. He cosponsored Wyoming Sen. Malcolm Wallop's bill to create a commission, and argued on behalf of that bill before recreation groups across the country.

### Recreation Important

Sen. Jackson said it is time to reshape a national policy that makes clear the importance of outdoor recreation. He feared too many of us have lost sight of the importance of recreation in our lives and the economy. Second, he said we should study how public and private institutions work together in delivering outdoor recreation. "Especially in times of tight budgets," Jackson said, "we should avoid duplication of effort and seek the most efficient and cost-effective ways to provide outdoor recreation for all those who wish to participate."

Jackson said, third, he thought it time to rediscover what he called the "constructive and bipartisan spirit" which had been the hallmark of ORRRC, and of much of the environmental recreation legislation passed since the ORRRC report.

### Seven-Member Group

Mr. Rockefeller acted in harmony with Jackson. After several national conservation and recreation organizations conducted workshops on the idea, Rockefeller personally commissioned a seven-member group to review outdoor recreation, chaired by Henry Diamond, the man who edited the original Commission report. The report of this group, *Outdoor Recreation for America 1983*, recommended as a first order of business the establishment of a new study similar to ORRRC. It is noteworthy that among the seven people who participated as members of the Rockefeller study group, two are members of the President's Commission: Sheldon Coleman of the Coleman Company, and Patrick Noonan of the Conservation Fund. A third member,

William Penn Mott, Jr., has since been named Director of the National Park Service.

Reasons for a new look at outdoor recreation pop up everywhere.

America has changed a lot since 1960. Now there are more of us Americans, able and eager to travel greater distances to use the outdoors. We have more time for leisure and we give more time to fitness. Urban sprawl swallows more and more of the outdoors that existed in 1960.

The new Interstate Highway System stands just short of completion. New subways, more snowmobiles and more recreation vehicles move Americans to more places and different places faster than ever before. More cross-country skiers and white water rafters and paddlers explore the uncrowded parts of our nation.

Even family structures are different. More than half of American women work outside the home now. Childrearing responsibilities are shifting.

And, during the last twenty-five years, the national government has run



**EACH YEAR**, more people come to enjoy the wonders of America's outdoors—its hunting, fishing, camping, backpacking—and their needs make it essential that plans be made to accommodate them. The President's Commission is working toward that end.

up a spectacular deficit. There is little extra Washington money for new projects. So of necessity America's federal government is catching up with a decentralizing tide which focuses more on smaller, more basic units of living: the family and the neighborhood and the community.

Twenty-five years ago most of the recommendations of the Rockefeller Commission called for national government action. Today state and local governments are stronger and more willing to address needs closer to home. Private enterprise is waiting impatiently to help Americans be more active outdoors and to find innovative ways to do it.

One thing has not changed. There still are conflicts among those most interested in the outdoors. What is a "wilderness area"? Who can use it and when may they use it? Will there be a Land and Water Conservation Fund? Which federal agency should be in charge of what? What concessions, and what type, shall there be in which National Parks? Where can motorized vehicles operate?

Laurance Rockefeller's work was monumental, but the changes of the past quarter-century make it imperative to look again, now, at the needs and desires of the American people for outdoor recreation.

President Reagan appointed members of the President's Commission on Americans Outdoors in August, 1985. We have met twice—in Washington, D.C., and in Austin, Texas—and plan four more meetings through 1986. We plan at least a dozen hearings in cities across the land to hear what the experts

have to say. But in order to make certain that we assess the needs of the American people, we have opened each of these hearings so that almost any concerned American will have an opportunity to present their ideas to the Commission.

Commission members will visit recreation sites in or near each city in which we hold a meeting or hearing. These visits will show commissioners first-hand a representative sampling of how Americans use the outdoors to play and relax.

We have assembled a talented and energetic staff in Washington to assist us in researching and preparing the final report to the President—a small staff in comparison with the one assembled for ORRRC, but a staff strong on experience.

The opportunity to renew a broadly-based bipartisan coalition of concern for the future of Americans outdoors—as Sen. Jackson hoped—is a major challenge for this commission.

The President's Commission on Americans Outdoors is not a group to set just federal policy for just the public lands in the Western United States. How people in Brooklyn find access to the outdoors is as important as what the federal policy is for the Brooks Range in Alaska. The commission's mandate from the President is broad: *What will Americans want to do outdoors and how can we make sure they have appropriate places to do it?*

It is time for a new look at Americans outdoors. The President has given us enough time—18 months—to do a good job. And it is time for thinking worthy of a new century.

## Cover Story

"The American Bald Eagle," by Dave Wolford, vividly captures the beauty, freedom, boldness and power exhibited by these majestic birds that make them most fitting as our national emblem. And, thanks to the many reintroduction projects being conducted around the country, it's beginning to seem this eagle's future is more secure than it has been in decades. A limited edition of 1000 22 x 27-inch, top quality signed and numbered prints is available from Dave Wolford, 367 Olivia St., McKees Rocks, PA 15136, at \$55, delivered.





**USE OF A wide-angle lens gives a panoramic view of things, much as is shown in this photo taken at Raystown Lake. At times that's more desirable than details.**

## Camera Comments

**M**Y VIEW OF the outdoors, as well as everyone else's, is not flat. It's got three dimensions we can walk right into. But these dimensions create a problem when we try to photograph the natural world. Portraying the outdoors at its fullest cannot be done with a one-lens snap-camera. Any serious shutterbug, amateur or professional, knows that to show off all aspects of the outdoors requires an assortment of lenses in a number of focal lengths. Peek into an avid photographer's camera bag and you will find at least three

types of lenses: close-up, normal and wide-angle.

What are these lenses, anyway? They're more than metal and precision-ground glass. They are responsible for our being able to view the world in a variety of ways. But behind the lens, the film and the camera body, there is the eye. That eye doesn't need any apparatus intervening between itself and the subject in order to get results. All that is needed is an adjustment of viewing attitude. Of course, without an actual camera, these results won't be the kind that can be printed on photographic paper: they'll remain only in the memory.

Why should imaginary camera lenses be important to a hunter? Because by seeing the wild world through them, he will have a better day afield, whether he carries a gun along or not.

Take the camera body of your mind and attach the close-up lens first. What do you see? That lens is designed to focus on small details. As a summer-

# Another View...

by Linda Steiner



**A CLOSE-UP LENS** permits focusing on small details, as on these Indian Pipes. As a special purpose device, this lens has its limitations. But so do normal and telephoto lenses. Each is designed to fill a specific need and does so very well.

time hiker, it means you can bend down and examine the waxy-white delicacy of Indian pipes or the water droplet diamonds on a web wet with morning dew. As a hunter, this is good training at noticing the important clues to game.

Stooping to examine chewed nuts will reveal if a red squirrel or a gamier gray is in the vicinity. Checking turkey spoor will determine if it was a gobbler band or just hens and poults that scratched past. The close-up lens is excellent at pointing out buck rubs on saplings, the browsed ends of branches, and whether the dogwood has berries for grouse. If this lens is used correctly, you'll return home with muddy knees and elbows.

The close-up lens, like any special purpose device, has its limitations. For average viewing situations, the normal lens is best; also it can be used standing. This is the standard lens with which

you take candid of your friends on an afternoon 'chuck hunt. But the normal lens, because it has such constant use, is deceptive. Most people get poor results with it because they don't think about what is in the viewfinder.

For a hunter, using the normal lens correctly means being able to recognize what is seen — in other words, spotting game. These animals are not particularly small or far away, but do possess the "hidden" ability of blending into their surroundings. It takes a sharp eye to put them in the picture. The sheen of fur in the sunlight, the gleam of feathers, the flick of an ear — all are worth learning to place center-frame.

### Last Dimension

To add the last dimension of the outdoor world, fit the wide-angle lens to your mind. This is a welcome order on summer days, as it will produce a panorama bursting with green, from mountain to field. To a hunter, though, this picture is more than pretty scenery. It is an overview of wildlife's home.

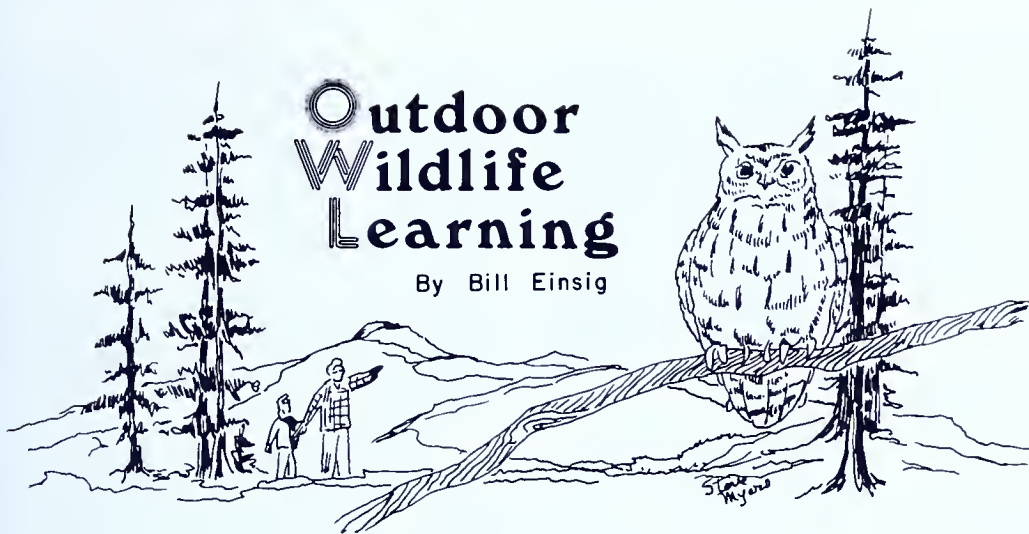
Being able to widen our scope lets us consider the terrain on which game lives. This can tell us where, in particular, that game is most likely to be found. It's possible, for example, to know the location of deer runways without walking to them to investigate. Is there a bit of a saddle in that ridge line? Is that a finger of woods leading into the cornfield? Both sights mean sure deer usage. Hemlock-studded hollows are good bets for turkey roosts; dry points grow oaks, with acorns for squirrels; a hillside will draw white-tails when it reverts to brush. All these hotspots could go unnoticed without the wide-angle lens.

In real-life photography, it's often said that the eye behind the camera makes the picture. But there's nothing wrong with giving that eye some help. Actual lenses and our imaginary ones are both tools that make it easier to achieve desired results. For a photographer that means a multi-color print; for a hunter, it can be a more satisfying and successful outing.



# Outdoor Wildlife Learning

By Bill Einsig



## Don't Try These Ideas!

**I**F YOU'RE a teacher, an amateur naturalist or a lover of the outdoors, I doubt that you'll find any useful ideas in this column. You might find a few chuckles, however, and a new appreciation for the expression "Things are not always what they appear to be."

Regular readers know this column promotes activities that teach youngsters about wildlife and the natural world. Many publications—books and periodicals—specialize in such activities. However, not all of these activities are practical. Many of them *sound* like good ideas but are really not useful in practice.

Usually, this column focuses on the best activities, those with proven track records. This month we'll look at some of the others. I won't recommend you try any of these, and I'm amazed that anyone else could. However, these are all published ideas. Some author thought enough of each gem to include it in his book. You decide for yourself.

### Aerial Animal Tracks

Animal tracks do tell stories and a path of tracks tells far more than individual imprints. One author recommends studying, and photographing, the trail of tracks from the air. Climb a tree, a cliff or high rock to get a good view, he says.

He also describes how to rig a boatswain's chair to hoist yourself above the ground and sit suspended from a convenient overhanging limb. Good ropes, good

knots and good friends are essential for safety's sake, the author admits.

The first step is to get the rope up and over the tree branch—an obvious problem. But not for this author. He recommends using a bow with a front-weighted arrow to carry the rope end over that branch. You do carry such equipment with you at all times, don't you? Of course, you do.

With the hoist rope in place, attach the seat, and of course a safety rope, and have your good friend hoist you aloft. Your friend then ties off the rope around a sturdy tree trunk.

Once in the air, you can photograph the tracks and quietly wait for the other natural wonders to occur on the ground below. Of course, if there's any breeze at all, you may find yourself spinning slowly or swaying to and fro. This could give a whole new meaning to "slow motion" photography.

I wonder, too, how many animals would just happen to wander beneath your chair. You might sit quietly above the animal's line of sight, but your good friend is still on the ground beneath you. At least, I hope he's still down there because he's the one who must untie the rope to let you down.

### How To Outrun a Trout

Here's an idea that's so simple it's destined to be a winner. It's an easy stream-side activity that requires only a stopwatch, a measuring tape, and a very fast runner.

First, lay out a 100-foot distance along a stream. Next, use the stopwatch to time various species of fish as they swim upstream through your measured course. Which species is the fastest? The author says you'll probably find trout to be the most swift.

I have a few problems with this idea, simple as it is. Most trout I've watched don't spend their time doing 100-foot dashes. Should I prod them along? Another thing, if I start the stopwatch when the fish is at one end of the course, don't I also have to be at the other end when he crosses the finish line? I don't think I can run that fast.

Remember, too, this activity is supposed to observe the comparative speeds of various species. You'll have to find, watch and time several other kinds of fish racing in this unusual stream. I won't say this can't be done, but I don't have the eyesight, or endurance, to make it work for me.

## ✧ The Muskrat Nest Blind

Take an old inner tube and build a mound over it with chicken wire in the shape of a muskrat lodge. Cover the wire with brush, sticks and grass. Also, add a shelf inside the lodge to hold your camera, binoculars and trusty notebook. This whole contraption is now supposed to float on the water around your head and shoulders as you walk around the swamp, peering into the uninterrupted mysteries of nature.

The author is quick to point out some real dangers in this activity and you should know what they are. First, in "eastern swamps" there is a "slight danger" that poisonous water moccasins will try to enter your muskrat lodge. We don't have water moccasins in our Pennsylvania swamps, Mr. Author. Second, there is "real danger" from alligator attacks in southern swamps. Whew! Pennsylvanians luck out again! There are no alligators in our swamps either.

The third danger is a real one for us all. Large birds such as "crows and terns"

might land on top of your lodge and use it as a toilet. Our author has a remedy—use a sheet metal or plastic shield on the top of the lodge to protect yourself from these droppings. Now, why didn't I think of that!?

## The Mole Watcher

Here's a clever apparatus that could be fun to build and frustrating to use. It's a homemade periscope that will let you spy on the private lives of moles and other burrowing animals.

Use a tube three to four inches in diameter and a foot long to make your periscope. Cut half the tube wall away about four inches from one end of the tube and mount a mirror on a 45-degree angle. Now, when you look through the tube, you should be able to see a side reflection in the mirror on the other end of the tube. Sounds good for a toy that will let you see around corners.

This author, though, has other plans. He suggests sticking the tube into mole holes so the mirror can peer down those long tunnels that bulge through the grass. But wait, isn't it dark down there? Of course! But that's no problem. You just attach a small flashlight inside the tube so that it shines on the mirror and lights the tunnel! (I think I saw this in a Rube Goldberg comic years ago.)

I think just seeing a mole in its tunnel with this contraption would be a spectacular feat. The author, however, expects much more. He suggests you record the mole's reaction to your light, what the mole eats, and how two moles react when they meet in the same tunnel in front of your little periscope with its built-in flashlight. One more thing. You should also try to tell male moles from female moles and record how the reactions of the two sexes differ from one another.

By the way, if you ever want to investigate the lifting strength of insects, I can give you plans for tying a harness to fit cockroaches and grasshoppers so you can measure the number of BB's they can lift. Amazing.

## Thoughts While Walking

*I don't care how much a man talks, if he only says it in a few words.*

—Josh Billings



**T**HE HEAT and humidity of July bring most of the hunting activity in south-eastern Pennsylvania to a complete standstill. A few hardy long range woodchuck hunters venture forth, but you can bet they're not far from an ice chest full of cold pop or a vehicle equipped with air conditioning.

If you do hunt chucks this summer, be sure to wear the blaze orange hat that the law requires. In fact, go one step further and add a fluorescent orange vest to your outfit. When you're gunning, especially for woodchucks, you don't want to leave any doubt in another hunter's mind that you are not a legal target. Enjoy hunting, but abide by those regulations which are designed to increase your chances of returning home alive.

*July 1*—Several days ago I had received a phone call from an individual in Elk Township. He had heard that Deputy Steffy and I were looking for the dog which had killed a fawn two weeks ago. He was calling to inform me where the animal could be found.

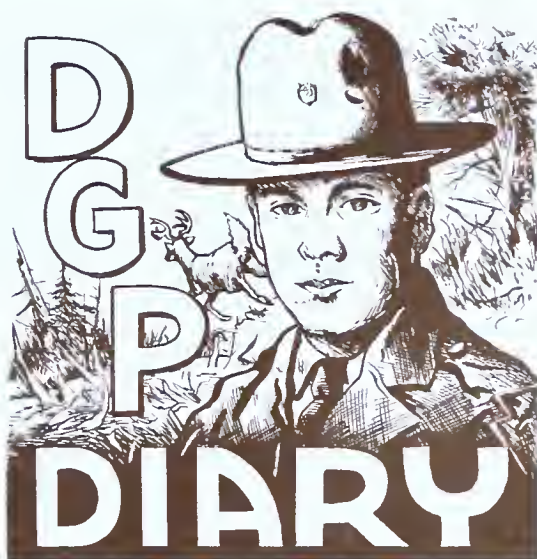
This morning, the witness accompanied me to the home of the individual who owned the dog. Upon seeing the dog, the witness positively identified it as the one which had killed the deer, and was willing to testify to that at a hearing. I issued the dog's owner a citation and briefed him on how the matter could be resolved.

Upon returning to my headquarters, I spent the remainder of the day reviewing special permit renewal applications and annual reports.

*July 2*—Spent the morning in the office reviewing more special permits and annual reports. In the afternoon, picked up and disposed of a roadkilled deer in East Bradford Township.

*July 3*—Started the day by meeting with a licensed game propagator in the West Chester area. As part of the renewal procedure, some special permit holders are required to undergo an annual inspection of records and premises. After conducting the required inspection, I picked up and disposed of a roadkilled deer in Pennsbury Township.

*July 5*—Traveled to Oxford this morning where I filed a citation on the dog case with



**By Keith Sanford**

**District Game Protector  
Chester County**

District Justice Donald Brown. From there, I headed over to West Chester in response to a call regarding a sick raccoon. The animal was found in a suburban backyard, lying on its side and unable to get up. Since the coon hadn't come into contact with anyone, I put it down and then advised the property owner to bury the animal and to disinfect with ammonia any implements used in handling it.

Sick raccoons such as this are on the increase in Pennsylvania. Fortunately, none in Chester County have been diagnosed as having rabies. If you find a wild animal exhibiting unusual symptoms, don't handle it! For safety's sake, leave it alone.

*July 8*—I was in the office this afternoon when I received a call from a woman in East Fallowfield Township. She had been working in her yard when she saw a pheasant flush from a nearby weedfield. As the bird flew away, she heard a shot and the cockbird tumbled down. I arrived at the scene within a half-hour after receiving the call, but was unable to find anyone who might be a suspect. I spoke with several neighbors, hoping someone had seen something that would be helpful. No luck. Before I left, I thanked the caller for contacting me and encouraged her to phone

again if a similar incident should occur. In law enforcement, the violator has to be lucky all of the time; the enforcement officers only once.

*July 11*—Spent the morning in the office putting together an article for my newspaper column. In the evening, continued the firearms safety program which I had started last month with the Boy Scout troop in Birmingham Township. After completing my presentation, I headed over to Pennsbury Township where I patrolled for a couple of hours in the vicinity of Chadds Ford. I had received reports that the area was already getting some spotlighting pressure, but this evening the lighters were nowhere to be found.

*July 15*—Started the day by meeting with Deputy Horace Steffy. Together, we drove to the district court in Oxford where our dog case was to be heard by District Justice Donald Brown. The judge listened to testimony given by the witness to the incident, myself, and the defendant. After considering all the facts, the defendant was found guilty and ordered to pay the appropriate fine and court costs. If people were more diligent in controlling their dogs, our wildlife would be much better off and situations such as this wouldn't have to be resolved in a court of law.

In the evening, I was at the borough hall in West Chester where I attended the bi-monthly meeting of the Chester County Federation of Sportsmen's Clubs.

*July 16*—Answered a call this morning in West Chester regarding several raccoons trapped in a dumpster. Apparently, they entered the container in search of food but were unable to leave once they had eaten their fill. When I arrived, the caller and I placed an old board in the dumpster with one end touching the bottom of the container and the other resting on the top. Once we stepped back, the coons realized what the board was for and quickly scrambled out.

From there, I went to our Regional Office in Reading where I picked up targets and ammunition for an upcoming deputy firearms shoot.

*July 18*—After picking up a roadkilled deer in the London Grove area, I headed north to State Game Lands 43 near Elver-

son, where I was to meet some of our Food and Cover Corps employees. For the past few days they had been working on the shooting range there, installing barricade supports so we could use it for our semi-annual deputy shoots. In addition to sinking the supports, they also had built a dozen barricades for our use. With no place to store them on the Game Lands, I had to pick them up and move them to a place for safekeeping.

In the evening, Deputy Cary Haupt and I met with our scout troop for one final time to finish up their mini-course in firearms safety. We gathered at the grounds of the Southern Chester County Sportsmen's and Farmers' Association in London Grove, where each scout had an opportunity to try his hand at shooting clay targets. The boys not only enjoyed themselves but also received some valuable instruction in the safe handling of firearms.

*July 20*—Held a firearm training session at State Game Lands 43. The entire deputy force from Chester and Delaware Counties was invited. Each officer in attendance received instructions in the use of force and fired both the daylight handgun survival course and the police shotgun course. Scores from today's shoot as well as all other firearms training sessions were logged, and will be kept as a record of each officer's proficiency on the range.

*July 22 and 23*—Spent both days at the county courthouse in West Chester, where I had been summoned to jury duty. Although I wasn't selected to serve, it was interesting to observe the legal system from a perspective that I wasn't accustomed to.

*July 24*—Law Enforcement Supervisor Lowell Bittner called this morning regarding an individual in the Chatham area who possibly was illegally possessing a mounted owl. The information had been uncovered by a conservation officer for the Ohio Department of Natural Resources during a records check of a Buckeye State taxidermist. I learned that the owl, already mounted, had been found dead in a barn and been given to the Pennsylvanian by relatives living in Ohio, well over seven years ago. In the meantime, the mount had been destroyed by a family pet and discarded. Under state and federal law, only museums, schools, nature centers, and



other educational institutions may retain mounted specimens and study skins of fully protected birds. Due to the circumstances surrounding this particular case, no prosecutions were made.

In the evening, attended a meeting with several volunteer instructors who present a hunter education course each fall in Avondale. We put together a formal class outline and briefed each instructor on his particular teaching responsibilities.

*July 25*—Spent several hours in the office, packaging materials for this fall's hunter education courses. During the next few weeks, these classroom aids will be delivered to a representative from each club in my district sponsoring a course. In the afternoon, disposed of a highway killed deer in Pennsbury Township and then inspected the premises of a licensed game propagator in the Homeville area.

*July 26*—In Pennsylvania, district game

protectors and waterways conservation officers are unionized in much the same way as are the majority of the nation's blue collar workers. I was on administrative leave today and spent the entire afternoon attending a meeting of our local in Lamar.

*July 30*—Patrolled in the morning and early evening hours in West Fallowfield, Highland, and Upper Oxford Townships.

*July 31*—After a morning in the office reviewing special permit renewal applications and annual reports, headed to West Nottingham Township to pick up an injured wild turkey. The hen, which was wearing a numbered leg band, had been released as part of the Game Commission's trap and transfer program. Found by a local farmer, it was blind in one eye and was severely emaciated. On advice from the wild turkey biologist Arnie Hayden, I put the bird down. I hoped the remainder of the flock was faring better.

## young artists page



**Matt Fair**  
Lancaster, PA  
Lancaster Catholic High School  
10th Grade

**Tom Kelly**  
Meyersdale, PA  
Meyersdale Area High School  
7th Grade



THE COUNTRY is the color of old bones, smoke, and cream of mushroom soup. Buttes, spires, mounds, all jammed together, corrugated and baked, striped here and there with pink and tan and green.

The sun beats down, reflecting off the broken terrain. It blazes under my hatbrim. It makes me wince. Must be 90, maybe 100, even in the shade—if you can find shade.

The Sioux were the first to hang the name on the Badlands: *makoshe shicha*, bad land. Then the French fur traders came through and knew it as *mauvaises terres a traverser*—bad lands to travel across. Today a million people travel across it every year. They drive it in their air conditioned cars, on a ribbon of asphalt that curls away from Interstate 90 in western South Dakota, winds through Badlands National Park, and rejoins the Interstate at a town called Wall. From there the travelers hurry west to the Black Hills and Mount Rushmore, taking with them a few snapshots and fleeting memories of a strange, disquieting land. While filling my water jug this morning at Park Headquarters, I asked a ranger how many of the visitors leave their cars and hike away from the road. He smiled. “Maybe one percent of one percent.”

### One Gallon Minimum

By now I’m a couple of miles from my car, parked at the Sage Creek Campground. I stop and shrug off the pack, get out the water jug and take a long pull. One gallon a day is minimum for the Badlands in August, the ranger said. A gallon weighs eight pounds, about all the extra weight I can carry, which means I’ll be coming out every day to replenish my supply: no potable water graces the Badlands.

I shoulder the pack and start the gradual descent into Sage Creek Basin. Sage Creek is sediment-laden, the color of milk of magnesia and said to be equally cathartic. The creek has a pebbly bed and high vertical banks. Arroyos channel into it, but they are

# Thornapples



Chuck Fergus

dry. The Badlands has received four inches of rain this year, one inch since April.

I hike across a plain where smooth stones shine beneath brown blades of grass. Ringing the horizon are tan and ochre teeth which my map tells me are 400 feet above the level of the plain and some seven miles off. It’s tough to judge distances out here: The teeth look like full-scale mountains at least twice as far away.

I find a thick patch of grass, dump the pack, and put up the tent. The wind noses and roots at the stretched nylon. Taking along the water bottle, I seek out a nearby ravine dotted with junipers. Sitting in the scrubby shade, where the wind can still reach me, I finally cool down.

There’s an anthill a couple of yards away, and after a while I brave the sun for a look. The low cone is dotted with pebbles. Strange, here is a shell: conical, white, and whorled, scarcely bigger than a pin’s head. The Badlands is half a mile above sea level and a thousand miles from any ocean.

Around 100 million years ago an arm of the Arctic Ocean pushed south to meet waters flooding north from the Gulf Coast. Then, the Badlands—indeed the whole interior of North America—was a shallow inland sea. Eons later the sea drained away, and the muddy bottom—with countless en-



tomed sea lizards, fish, ammonites, giant clams, and tiny whorled snails — became 300 feet of shale. Now erosion works the fossils free.

Paleontologists like to sift through anthills. In 1965, one expedition found 5000 fossils, including traces of fish, amphibians, reptiles, and mammals, in 100 or so anthills a few miles east of here. Using jawbones and teeth excavated by the ants, the scientists pieced together complete evolutionary sequences for rodents and other small animals.

### Famous Fossil Country

The Badlands is famous fossil country. Its most abundant fossils come from the Oligocene, 25 to 40 million years ago, after the inland sea, after dinosaurs had arrived and vanished and when mammals were coming into ascendance. Back then the Great Plains was tropically lush, something like Florida today. There were mammals all over the place, including prototype deer, antelope, hyenas, dogs, mice, cats, beavers, horses, and camels. The largest of the Badlands mammals was the titanotheres. It looked like a long-legged hump-backed rhinoceros. It stood eight feet at the shoulder and weighed five tons.

In the late Oligocene, the climate cooled. The land rose and dried out, and the vegetation changed. Some of the mammals survived, changing a little to their present forms. The horse, for instance, left North America via the Bering Straits land bridge, further developed in Eurasia, and returned to North America in 16th-century Spanish galleons. Other species became extinct. South Dakota has no more titanotheres.

When the land around here rose at the end of the Oligocene, it tilted up in the west. Wind and water went to work. Erosion uncovered mudstone, sandstone, and shale, washed fossils free, and carved out the clustered formations that make the Badlands what it is today. The formations are, well, incredible. Fins, fingers, pillars,

arches, ash heaps, gullies, steps, shelves, buttresses, cones. I study my map in between sips of water. It seems the formations are too changeable, too geologically evenescent, to have inspired sublime names. The Grand Canyon has Buddha Cloister, Cheops' Pyramid, and Vulcan's Throne; in the Badlands you settle for White Butte, Yellow Mounds, and Big Foot Pass.

The sun is low, and the air is cooling nicely. I go back to the tent and take a quick supper of bread, cheese, and fruit. Time to get out and about. I cross a gully, climb the slope on the other side. On top, a dozen kinds of grass rustle underfoot, tangled together in a tough, springy mat. I smell mingled scents of sage, juniper (like gin), and earthy, air-filling grass — over 40 species of grass diversify the uneroded portions of the Badlands.

Keeping the wind in my face, I work slowly down the next gully. I follow a broad beaten path, which stinks of dung. I know very well what kind of dung: buffalo. In 1963 the Park Service reintroduced the bison, bringing a band of 53 to the Badlands. Today they number around 400. I sneak along, keeping my eyes moving. It would not do to prod an old bull too closely. He might pinwheel his eyes and dash his one-ton carcass about.

No shaggy black surprises in the scrub. Except for a porcupine, sitting at the foot of a juniper, looking dazed.



I angle over a low ridge, and there he is: *Bison bison*, a safe quarter-mile away. A single bull, he grazes in a grassy swale. He is black as ink, hump-backed, weighted to the front, his back legs spindly and his forelegs trousered in wool. I watch through binoculars. Going forward for a better look, I spot a shape between the buffalo and me.

It's a pronghorn antelope, a fine buck with curving black horns, intently feeding. I drop to a crouch and sneak in behind a juniper. The buck has tan-and-cream sides, dainty legs, a tiny twitching tail. He is standing less than a hundred yards away, and he is not alone. Three mule deer, all bucks with antlers in velvet, edge out of a thicket. I spy for half an hour. I consider it a point of honor to sneak away without disturbing the grazers, and do so.

This far north, a summer day takes a long time to fade. The sun's glow is not gone until after nine. I sit in the door of the tent, swigging water, listening to coyote babble coming in on the breeze. A new glow backlights the jagged spires in the east, and soon a full orange moon rises. I crawl into the sleeping bag and have almost drifted off when I am jarred awake by a weird sound: like a Bronx cheer, like a violin note played with a file.

I squirm out of the bag and go outside. In the moonlight birds are flying, gray birds whose long wings have white marks on them like band-aids. Nighthawks. Eaters of insects, they flap across the prairie. Their normal

call, which I have often heard at home, is a buzzing note, *peent*. These Badlands birds call *peent*; they also fly high into the sky, come hurtling down, and pull up near the ground. Each time they pull out of a dive, their wing feathers make that bizarre, reedy roar.

In the morning I am up early, packing the tent and moving out in the cool. I hike to Sage Creek and follow its meanders toward my car. In a wash I find three bleached objects the size of soccer balls half-buried in the soil. They are fossilized turtle shells. I can see the plates that knit the carapace together. Turtle shells are among the most common animal fossils in the Badlands. These have slept for 30 million years. Exposed, they will crumble in five.

I walk on, listening to the liquid music of meadowlarks and to a sparrowhawk's shrill scolding. In a dusty flat I am greeted by a chorus of whistles. A prairie dog village stretches before me. The residents race about in panic, and whistle at me from the mounds of dirt that form the roofs of their houses. At distant burrows the chunky brown rodents touch noses, or stand up straight to see what the fuss is about. Waves of whistling precede me for the next quarter-mile.

At the campground I get my car and drive to Park Headquarters, where I refill my water jug. Then I head for Conata Basin. I park in a picnic area, don my pack, and go. A family seated at a shaded table stops eating to watch me.

The noon heat is all-enveloping. I





keep to the grass, paralleling a line of naked cliffs. With map and compass I work my way between humps of dry clay. On bare earth the heat bakes up through my boots. I ease through patches of knee-high grass, watching for snakes. Prairie rattlers inhabit the Badlands. Even for rattlesnakes, they are a testy breed. Few of them live here, though, because food and cover are too scanty to support high densities of prey. Nor are they well adapted for the heat: Stranded on hot clay, a rattler will die in 20 minutes.

I cut between two taffy-colored buttes and clamber down off a flat. A rustling breaks out at my feet. I leap back, then grin at the meadowlark that whirrs away. I pause long enough to find the bird's hideout, an overhanging lip of sod that throws a patch of shade no bigger than my hand.

My off-road goal is to a place called Deer Haven, practically the only green place I could find on the topographical map. It is easy to pick out, 20 acres of juniper below barren, cream-colored cliffs. Again I set up the tent and then go sit in the shade. Around me, nothing talks but the sun. No birds sing. No insects call. No mice rustle. The heat ticks up from my tent, and a hot breeze stirs in the junipers. Nothing to do but wait.

Dusk finds me scrambling up a notch in the cliffs. On top I am rewarded with a classic Badlands panorama. Chalky hummocks shot through with long olive-colored faults. An expanse of sod tables, flat-topped steep-sided mesas capped with grass and separated from one another by erosion channels. On one table a mule deer doe grazes, her big ears flicking. On another table a buffalo feeds. Farther off, the land climbs in crazy waves, with pale horizontal bands linking one formation to its neighbor a couple of hundred yards away.

The sun lowers toward spires peppered with roosting vultures. The formations seem to flicker as some are cast in shadow, others bathed in rosy light.

Far away, on the edge of a long,

prominent escarpment called the Badlands Wall, windshields twinkle. My binoculars reveal silver trailers and silent moving dots. I wonder what the people would think if they could see me. They could pick me out, surely, if they trained their binoculars on this haystack of clay. Although the buffalo, which they are no doubt gawking at, is a lot more interesting.

### Bighorns!

Sliding pebbles make me turn. Sheep. *Bighorn sheep*. The ranger had said they hung out around Deer Haven, but I hadn't expected to see them this close, seven sheep staring across a 60-foot draw, their eyes riveted on mine.

They stand in a grassy patch at the base of a big, toothed spire. They are ewes. And slim young rams with narrow half-curve horns—not heavy muscled old rams, the herdmasters with their massive curls, but honest-to-God bighorns nevertheless.

Like a bison, bighorns are original residents. A century and a half ago, the Badlands supported numerous bighorns, of a subspecies called Audubon's sheep. Settlers, travelers, and market hunters killed them, and now the Audubon bighorn is extinct. These, who seem to regard me more with curiosity than fear, are Rocky Mountain bighorns, descended from a herd brought in from Colorado 20 years ago.

I ease my binoculars up and study amber eyes with vertical slit pupils, backlit whiskers, jaws that work sideways. The sheep blink and look around and mill and stiffen and stare.

"Hello, sheep," I say.

Suddenly a sheep I hadn't seen—bigger than the rest, an old ewe—shoots out from behind some brush and angles up the spire. The others spring into action. One leading the next, they run diagonally up the naked rotten face and slip over the rim and vanish into the glow of sun until I am left with only little pebble slides that raise pale dust down the furrowed chalky slope and peter out in silence in the grass below.

# Formidable Fingers

By Keith C. Schuyler



**W**HEN IT is considered that target tournament field archers draw 112 arrows from bows that weigh up to about 50 pounds at peak weight, and usually do it with three fingers, the repeated load on these digits is formidable. Yet, that is what it takes to complete a field course, regardless of whether the archer is carrying a longbow, recurve, compound or cam bow.

No matter what weight bow is being utilized, to determine the work load, peak draw weight can be multiplied by 112, the number of arrows shot in a full field round. For the muscular individual with a 50-pound bow, not unheard of in target shooting, a tournament demands that the archer draw the equivalent of 5600 pounds, straight back, in four hours or less. That's nearly three tons.

Whatever the round, whether field

or target, it is easy to figure the obvious work load simply by multiplying the peak bow weight by the number of arrows released at targets. Recurve and longbow shooters hold this full weight for indeterminate seconds on each shot. Compound and cam archers must pass the peak load and then hold for as long as they need to get a good release. This is all accomplished with two, three or four fingers. And this doesn't count a few practice ends, plus the distance walked for arrow retrieval. Whoever suggests archery is easy hasn't shot a target round — either in the confines of a suitable building or on a field course.

Competing with the bow, plus the practice that enables an individual to get to the competitive level, subjects the fingers of the draw hand to a lot of abuse. That accounts for the development of a means to protect them.

Hunters may have an even rougher row to hoe. Their bows are usually of much heavier draw, and many shoot their hunting bows in competition to get into trim for the hunting seasons. Regardless of the weight, the same fingers are employed to draw it.

## Save Fingers

No wonder Roger Askam, in 1545, wrote in the first archery book in the English language; "A shooting glove is chiefly for to save a man's fingers from hurting, that he may be able to bear the sharp string to the uttermost of his strength. . . . Some with holding in the nock of their shaft too hard, rub the

**ROD KOCH, of Berwick, demonstrates use of three-finger glove designed primarily for target shooting. This is one of numerous finger protectors available to bowmen.**



skin off their fingers." Little has changed. Some of us still "rub the skin off" our fingers if we do not wear adequate protection on the digits that must do all this work.

A positive anchor is necessary before we can even consider the release, as the bow exerts its counter force in trying to encourage us to let go. That subject was covered in the September 1984 column, "To Have and To Hold".

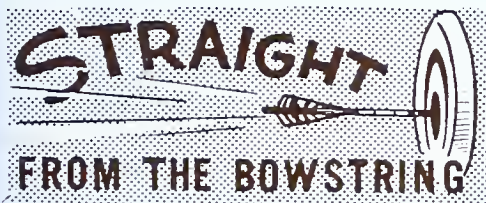
Although some of us shoot bare fingers for hunting, it takes literally weeks of practice with protection to harden the hide sufficiently for that purpose. Hunting shots are few and far between, and the momentary torture is



**KOCH demonstrates three-finger draw utilizing Fab Tab, left. Above, he uses a new chin rest developed for those who use an under-the-chin anchor. This approach is popular with sight shooters.**

not noticed in the excitement of the moment. Nevertheless, some bare-finger shooting is necessary, to make sure the advantage of "feel" and elimination of a hangup in reaching for the bowstring is to be enjoyed.

A cam or a compound bow may have a high peak weight, but relaxing of back pressure before full draw eases the strain on the string fingers prior to release. It is much easier to release a cam or compound bow rated at 50 pounds peak weight than a longbow or recurve.



Failure to provide proper finger protection can have serious results. A deep blister can form. If it tears loose, the tender underlayer is exposed. Or a surface blister can form. It might create a bloody mess at best, or a serious infection at worst. In any event, the archer can be out of business for a time.

There are three basic types of finger protection for the archer: the simple tab; a three-finger glove with partly open ends; any regular glove worn for protection against the cold or for camouflage purposes. There is, of course, the mechanical release. It involves the entire hand, a subject which was covered here in February 1983.

Importantly, it is necessary to shoot with any such device until it is broken in. It must conform to the shape of the individual's fingers, accept the bowstring properly, and provide a smooth controlled release of the arrow. Strap adjustment of the glove, or trimming of the tab, may be necessary to make it fit the purpose.



This brings to mind Lars Edburgh, now a teacher in New York State, who was several times Pennsylvania state champion back in the heyday of the recurve. Lars had a favorite finger tab which he had cut down until there was just enough leather extension to accept the bow string. Between tournaments he carried it in his wallet along with some other highly valued personal possession. Its condition would have brought tears to the manufacturer's



THOSE WHO shoot with three fingers under arrow nock need no more than a simple tab to hold the string, as at top left. Bottom left is the Saunders Friction Fighter, which releases a lubricant when tab is pressed on sponge, to make string slide easier. Some archers use a powder for this. Above, an assortment of finger protectors to withstand the cumulative tons of pressure created by a bow string over a long shooting session.

eyes, but it worked for Lars.

A variety of finger tabs is available today. I leaned upon Chuck Saunders, president of Saunders Archery Company, to bring to view some of the latest innovations. This Columbus, Nebraska, company has long been a manufacturer of archery tackle accessories.

Most recent is the Positive Anchor Tab. It provides a plastic projection of contact for those who anchor under the chin. It also incorporates a divider to keep the first and second fingers separated on either side of the arrow nock. This spacer can be removed or replaced. The finger tab itself rests on a metal plate which can be adjusted as desired.

Other tabs are modeled along the lines of conventional finger protectors, but Saunders' has a built-in lubricant that provides for a smoother release.

Many other tabs have been developed over the years, most of them utilizing leather. Kinsey makes a simple tab cut from steer hide with the hair intact. Early on the contemporary scene was Kantpinch, with a tab incor-



porating a removable separator. This separation of the first two fingers can be of special importance when shooting short bows that have an abrupt string angle at full draw.

Because a smooth release is essential to good shooting, a powder pouch, such as that made by Bear, was developed for target archers. This pouch, which clips on the belt, has a pad that absorbs powder and releases it through a permeable fabric at the tap of the shooter's tab. An overlay of plastic protects the pad from moisture. Dry powder is an excellent lubricant between the bowstring and the tab.

Saunders has a challenge to the old powder concept with a belt clip plastic container that holds a sponge treated with a substance created to reduce friction as the string leaves the tab. A hinged cover protects the contents from the weather.

Although some target archers still use the three-finger glove to avoid injury, tabs are most in favor. Full gloves,

with their more uncertain feel, are used chiefly by hunters for reasons previously cited. It almost goes without saying that no one should use any kind of finger protection in hunting or in competitive shooting without substantial practice beforehand.

It is no wonder that old Askam suggested that, "If you feel your finger pinched, leave shooting . . . because then you shall shoot naught . . ."

Whatever the choice, the finger protector must do what its name indicates—protect. And it must make favorable a smooth release to eliminate as much as possible any imperfection as captive force of the bow is transferred from fingers to string. The string itself must slide—rather than roll or jump—from the anchor position so that it drives the arrow straight away.

Askam called this critical exchange of power "loosing." And perhaps he was right. Regardless, a proper finger protector will help prevent you from losing it all at the moment of loose.

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# NEVER TOO LATE TO CHANGE

By Don Lewis

Photos by Helen Lewis

**LEWIS cut stock of lightweight Ithaca to 13 $\frac{3}{8}$  inches for perfect fit in winter hunting clothes. Nice rooster proves that he has things just about perfect.**



**T**HE ROOSTER exploded out of barely enough cover to hide a sparrow. I was caught by surprise, my Ithaca 20-gauge pump in my right hand. Luckily, it was wide open shooting and the rooster swerved to my left as it spiraled upward. I got the Model 37 Ultralite into shooting position in nothing flat, swung in front of the gaudy target and slapped the trigger. The shower of feathers and the tumbling bird gave me even more confidence in the super lightweight pump and its 25-inch improved cylinder barrel.

In a day when magnum shells are high on the popularity list, using a

short barrel with an open choke on tough pheasants may appear to be a step in the wrong direction. To go another step in the wrong direction, so to speak, I was using Federal's 2 $\frac{3}{4}$ -inch 7 $\frac{1}{2}$  Game Load for my first shot, backed with two Federal Premium 3-inch number 6 magnum loads. According to the thinking of many of today's shotgunners, I was using too short a barrel, the wrong choke, and definitely a bad shell selection for my first shot.

The two roosters I dropped with three shots that day are proof positive that the magnum shell is not mandatory for success on pheasants. On the other side of the ledger, I'm not against the magnum shotshell. You'll note that I carried two in the Ithaca's magazine. Every hunter should have the right to pick what he wants, and I have always felt hunting is a good bit psychological. No one, including gunwriters, should make definite statements which shotgun is right or wrong. What I will attempt to do in the remainder of this column is point out a few interesting facts that might shed some light on the mysteries surrounding shotgun shooting.

Since I have already mentioned the magnum shell, is it true the magnum shoots farther than the conventional shotshell? No, that is not true. It's also not true that a large gauge shoots farther than a smaller gauge. In fact, everything being equal in pellet size,



barrel length and choke, all gauges shoot about the same distance. There are still thousands of small game hunters who implicitly believe the 12-gauge outdistances the 20 or 16, but they don't. I'll touch on that later.

How about velocities? Does the massive 3½-inch 10-gauge Magnum generate more pellet speed than a 20- or 12-gauge? Again, I have to give a negative answer. Truth is, there is little velocity difference among shotshells of all the gauges and shotshell sizes. All shotshells fall into a very narrow velocity range, running from about 1100 to 1375 feet per second muzzle velocity. There may be an exception where some particular load combination touches 1400 fps, but hard ballistic facts show the shotgunner has no more than 300 feet of velocity difference among all gauges and all shells.

Don't be lulled into thinking the higher velocities belong exclusively to the larger gauges. The 28-gauge is just as capable of hitting over 1200 fps as is the mighty 3½-inch 10-gauge Magnum. The tiny 410 bore can push a ½-ounce of lead pellets out of the muzzle at 1285 fps. This might not be dramatic proof, but it should be clear that nothing is gained in velocity by choosing the larger shells. Not much is gained in yardage using larger shells either.

### Magnum Theory

The magnum buff comes right back with the theory that a bigger shell offers a higher percentage of hits. Well, that happens to be the case, but let's take a close look at what a higher percentage is. First, let me compare a standard 12-gauge 1¼-oz. number 5 shot load with a 1½-oz. magnum load of 5s. The regular load has 169 pellets, the magnum load 202. A bit of mathematics shows an increase of 33 pellets. Now that seems impressive, but how does it work out on a pheasant?

Putting 5 or 6 pellets into the pheasant just mentioned cannot be called saturation, but it's sufficient in most cases. So if your standard loads put 5



**SHORT BARRELS and open chokes are recommended for use on grouse cover. They're the best selection when game goes out fast at short range, as the thunderbirds usually do.**

shot pellets into the bird, when you switch to the 1½-ounce magnum load, and gain 20 percent in pellet count, you add but one pellet in your target. While every pellet that strikes contributes to the kill, the theory that the magnum shell delivers a much higher percentage of shot seems less attractive after some calculation. Going up a rung to the 1⅝-oz. magnum load increases the percentage figure to 30, and might add 2 extra pellets in the target.

Don't get me wrong; I'm not downgrading the magnum shotshell's advantages over the conventional round. I'm merely pointing out that the "higher percentage" of pellets in the magnum shell doesn't mean two or three times as many pellets striking the target, but more likely only one or two pellets more. It can be a little confusing to say the least.

Is it true that a small pellet penetrates deeper than a large pellet? I don't think so, though you can drum up a lot of believers in this theory. Many think that the smaller pellet, the less resistance it will meet in its journey

through whatever the target might be. Actually, weight and velocity are the prime factors. It gets to be a rather complex affair, but, in general terms, the heavier the pellet, the better the penetration.

For the last few years, spring gobbler season in Pennsylvania has increased interest in the "turkey shotgun." I've conducted shotgun seminars for turkey addicts who shook their heads at my woeful ignorance of not knowing that long barrels shoot farther than short barrels. After many years of gun writing, they thought I would have garnered the knowledge that a 32-inch barrel reaches farther than a 26-inch tube. No, I haven't stumbled onto that yet, though I can report that the long-barrel hunter is six inches closer to the target.

The modern smokeless powder shot-shell reaches its peak in energy after it travels 20 to 22 inches down the bore. When length is added to the shotgun barrel, nothing in the way of velocity or pattern density is gained. Long bar-

**EVEN IN PHEASANT cover, which is usually less dense than grouse jungles, 26-inch tubes bored improved cylinder and modified handle most chances perfectly.**



rels do swing smoother, once you get them moving, and this is a direct benefit to the waterfowler and dove hunter. But most rabbit, grouse and pheasant hunters will do better with barrels of 26-inches or less.

So many shotguns in the past were made with 28-inch tubes, that countless hunters believe that is the optimum length. This is not true, but a 28-inch barrel shotgun will often be chosen over a 26-incher. Maybe I'm lazy, but why carry two inches of steel I don't need?

### Misunderstood

I have saved choke until the last. It is a misunderstood subject, and yet it is essential for many types of hunting.

Factories stamp the degree of choke on the barrel. During my early years, I accepted, along with tens of thousands of other hunters, the stamped rating as absolute. It never occurred to me to find out for myself what the pattern from a given barrel was like. I assumed when a barrel was stamped "Full" it would deliver a tight ball of shot that would reach forever. Along with tens of thousands of other hunters of that period, I thought all rabbits, squirrels and grouse were dropped at 40 or more yards. Who in the world wanted to mess around with funnel-type chokes that threw shot charges like rice at weddings?

Firearm history gives credit to Fred Kimble in Illinois for discovering that by swaging some constriction into the muzzle of his shotgun, it would kill ducks at longer ranges. I see no point in delving into how choke came about. Although the advent of choke brought many benefits for the hunter, it also added an ample share of frustration.



When my small game hunting career started in the mid-1930s, full choke barrels were in vogue. It was common for hunters of that era to tack impressive monickers on their full choke outfits, like "Navy Gun" and "Big Bertha." These names came out of World War I and meant they were powerful at a long distance. Supposedly, the hunter felt his full choke 12-gauge was a super long range outfit. But the preponderance of ballistic evidence gathered over the last few decades prove there is no 100-yard shotgun. In fact, I'm being extremely generous with ballistic truths when I suggest some are effective at 70 yards.

For one thing, any shotgun, regardless of gauge, must print a very dense pattern (say 80%) in a 30-inch circle at 40 yards for it to make clean kills much beyond 60 yards. It's also true the shot charge must be heavier for ranges that stretch that far. Naturally, this takes the 3-inch 20 and the sweet 16 right out of the picture, for each has a maximum shot charge of just 1¼-oz. of shot.

The 2¾-inch 12 can handle 1½-oz. of lead, and the 3-inch 12 can be topped off with 1⅝-oz. of pellets. There are approximately 221 number 4 pellets in a 1⅝-oz. shot charge. If you intend to reach beyond the 55-yard mark with your 12, make certain it puts at least 175 holes inside of 30 inches on the 40-yard pattern paper.

### Shortcoming

Although I'm pretty much in line with present day thinking on shot charge size and distance, it has a shortcoming or two. It might be reasoned that if shot charge size only was the main criterion for long range shooting, the mighty 3½-inch 10-gauge Magnum would cover the 100-yard mark. Not so. Even with its massive 2-ounce charge, it will die quickly beyond 70 yards. A number 4 pellet is a number 4 pellet, no matter what size barrel it travels through. At extremely long



**PASS SHOOTING** on geese and ducks is something else. Often the chances are long, and the targets are tough. Here, longer barrels and tight chokes make sense.

ranges, pattern density is hard to maintain, and the energy of the pellet has dropped too low for it to be effective on live targets. There's no getting around it, they haven't built the 100-yard shotgun as of this writing.

Finally, pattern diameter doesn't increase when going up the gauge ladder. Alas, pattern diameters are practically the same for all barrels of the same choke degree. Sorry, 12-gaugers, your patterns aren't any larger than the ones coming out of the little 20-gauge Ithaca mentioned in the opening paragraph.

Good advice is to pattern your shotgun and stay clear of excessive choke. If your shotgunning has been nothing to write home about, it's never too late to change.

# *In the wind*

bob mitchell



Last fall, scientists from the Virginia Institute of Marine Sciences began using a satellite to track the movements of a loggerhead sea turtle carrying a radio transmitter. The specialists expected the turtle to spend its time in the Gulf Stream just off Cape Hatteras, but it turned out the endangered turtle stayed just off the Virginia coast. Scientists hope to use the satellite to track more turtles this year, now that the feasibility of this space age technique has been demonstrated.

Only 422 black bears were taken in New York in 1985, down substantially from the 10-year average annual harvest of 617. Because New York's bear population appears stable, this drop is attributed to environmental and behavioral factors that reduced hunter success.

As reported in *Kansas Wildlife*—the Sunflower State's counterpart to GAME NEWS—mallards comprise 36.8 percent of the waterfowl bagged in the Central Flyway. They are followed in order of importance by green-winged teal, 13.6 percent; gadwalls, 10.9 percent; blue-winged teal, 7.5 percent; and pintails, 6.5 percent. Wood ducks are the most common duck taken in the Atlantic Flyway, representing 24.9 percent of the harvest here.

According to the Wildlife Management Institute, there were only about 27,000 pronghorn antelope in North America in 1924. Since that time the number has grown more than 3000 percent; more than a million pronghorns exist on the continent today.

A native of India, while living in Massachusetts, was arrested after trying to sell a leopard skin (for \$6000) to a federal undercover agent. Leopards are classified as endangered and, as such can not legally be sold.

New York City's Verrazano Narrows Bridge and the Throgs Neck Bridge have been designated as "significant habitat locations" for peregrine falcons. The two bridges have been used as nesting sites by the endangered birds since 1983. This designation is for areas considered critical for the restoration of endangered species. These two bridges are the first structures to receive such distinction.

To reduce destruction caused by an overabundance of beavers to certain trout streams in Michigan, managers with the state's Department of Natural Resources are going to indirectly eliminate beaver habitat. Beavers do best around aspen stands, and in most instances aspen is cut regularly to allow new stands to regenerate. Now, in those areas where beavers are causing problems, the aspen will not be cut and spruce and cedar trees will be planted. It's thought that by the time the aspen die, the spruce and cedar will have grown enough to prohibit aspen regeneration.

**For killing two trumpeter swans in Minnesota, two men were each fined \$500 and \$55 in court costs. In addition, each was ordered to pay \$1200 in replacement costs to the state's Nongame Wildlife Fund.**

The National Wildlife Federation's Corporate Conservation Council, comprised of representatives of 13 corporations and the NWF, has chosen groundwater protection as the group's primary issue. Over half of all Americans rely on groundwater for drinking, and 35 percent of the public water systems draw from groundwater supplies. In 1985, consumption of groundwater was 90 billion gallons a day, three times the consumption rate in 1950. Problems that need to be addressed are supply, the detection of contaminants, and cost effective procedures for cleaning polluted groundwater.





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**COVER PAINTING BY BOB SOPCHICK**  
(Cover Story on page 44)

## Read the Digest

**H**UNTERS AND TRAPPERS, after you buy your licenses and before you head afield, spend a little time reviewing this year's Hunting and Trapping Digest. One is supposed to be given each license buyer. If you aren't given a copy, ask your issuing agent for it.

It's obvious to all agency personnel that some people never look at the Digest. It's understandable that the little booklet may seem imposing. We know the print is small and that the material is not the most entertaining. But it is important. A few moments spent going over the Digest now, especially those sections that pertain to your particular endeavors, can save you time, aggravation and maybe money later.

Space has been reserved on the cover of this year's edition where sportsmen can record their license numbers. Do it. Such a ready reference is handy if the license is lost and a replacement is wanted. And while you're at it, mark the names of the district game protectors covering the areas where you live and hunt. This could save valuable time if you happen to witness a Game Law violation or an emergency.

Also mark, or write in, the shooting hours for the days you know you'll be hunting, such as the opening of buck season or spring gobbler season; and be sure to consult the accompanying map and correctly adjust the times listed for the areas in which you'll be hunting. Every season brings infractions of the shooting hour regulations because some never bother to consult the Digest beforehand.

Go over the General Hunting Regulations section no matter how many years you've scoured our fields and forests. These regulations are designed for safety and wildlife, two considerations worth the few minutes it will take to review them. A Safety Zone, for instance, is 150 yards, not 150 feet. A mixup on that can lead to all sorts of problems, the very least of which is a \$25 fine.

Review the special regulations covering the southwest and southeast if you plan to hunt or trap in these areas. Seasons, bag limits and firearm restrictions are different from those covering most of the state. And take note, the southeast special regulations area has been enlarged this year.

Don't wait until the last minute to check application procedures and deadline dates for antlerless deer and bear licenses and goose blind permits. Every year many applications must be rejected because applicants fail to follow directions. Make sure applications are filled out completely, signed, and that the proper remittance is enclosed. Rules are rules, and those who issue licenses and permits must strictly adhere to them.

A great deal of time and effort — and a significant portion of your license fee — goes into producing and distributing the Digest. Answers to most questions people have concerning the Game Law can be found there, and many unintentional violations could be avoided if more sportsmen would take the time to review annually and stay abreast of the hunting and trapping regulations. Read the Digest this year. It's the least you can do for wildlife, the sport, and yourself.

— *Bob Mitchell*





I WAS GEARED FOR THE crafty antics of the fox squirrels, and therefore totally unprepared when two grouse exploded from the laurel. Screaming, I leaped back and landed on my backside in the middle of the creek.

## *Lessons in the Squirrel Woods*

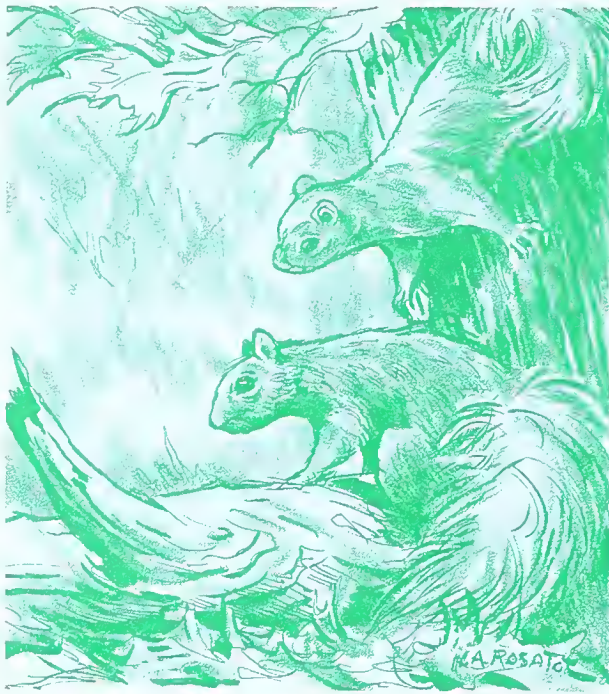
By Marion Younkin

**E**ARLY SMALL game season is my favorite time of the year. On the oak and maple covered mountain slopes of southern Somerset County, I spend hours walking under clear October skies and marveling at the colors that blanket the landscape. From the banks of Casselman River to the peak of Mount Davis, large numbers of squirrels and grouse can be found. Cool autumn mornings give hunters, hikers and all other outdoorsmen every opportunity to enjoy nature at her finest. October is my favorite time here. Whether my Brittany and I are beating the brush for grouse or I'm wandering the ridges with my well used 22 for squirrel, this month is my homecoming time.

Opening day in 1984 began with a muted pastel sunrise and frost that

added just a touch of crispness to the cool morning air. After a hurried breakfast I was on the forested slopes overlooking the river above the small town of Markleton. Historic Fort Hill lay about four miles downriver, and for awhile my mind pondered the mystery and romance of the Indian culture that flourished there long ago. Mound-building tribes left traces of their culture in the mysterious mounds of earth, rising like primitive pyramids, the length of the Ohio River Valley. Their purpose is largely unknown. That the forest paths I now walked once knew the silent tread of moccasins made me feel secure and close to the mountain. That was why I'd come here, to feel a part of history and nature while I hunted the same game that the nomadic tribes once also found so plenti-





**WHEN I WAS** in a good shooting stance, I pushed the laurel aside to find not one, but two, gray squirrels working the acorns at the base of the tree.

ful here. Thoughts of these predecessors became so overpowering I had to force myself to put schoolroom lessons out of my mind to begin concentrating on bushytails.

As I eased along the ridge a nutcracker started to bark and scold from the treetops. Peering into a rising sun, I eased my Winchester into position, but was unable to see my chattering quarry. After ten minutes of scanning branches and logs I decided to slip a little closer. Mistake! About 20 yards to my right a gray flash spun around a limb and disappeared into a hole. There was no time for a shot. I couldn't understand how I missed seeing that squirrel. I had stared at that limb a long time.

Continuing downriver, I crossed a small creek bounded by laurel and hazelnut. I knew that hazelnuts were favored by fox squirrels, so I was geared for their crafty antics and, therefore, totally unprepared when two grouse exploded from the laurel. Screaming, I leaped back and landed on my back-

side in the middle of the creek. As I listened to the echo of my own terror-filled voice bouncing off the mountain-side and my heart hammering in my chest, I wondered why I was still sitting in the creek. I thought I'd never last the morning at this rate. A rest was in order, so I found a slate outcrop and sat down to await the return of my wits.

Soon the forest calmed down — along with my heart — and the birds began to flit overhead. Squirrel activity seemed a little slow though. I idly picked up a piece of slate. It had a fragmented plant fossil on the underside. My mind went back to school as I began to think of the awesome forces that had formed this magnificent mountain over a million years ago. The soil of this slope was once at the bottom of a great inland sea that covered most of the eastern United States. It also nourished prehistoric trees that grew larger than the redwoods of California and other abundant plants that are now coal deposits. Strange reptiles lived on the verges of that great sea until forces geologists call “isostatic rebounds” pushed the sea bed over 2,000 feet into the air. Now wind and rain are eroding these prehistoric monuments. I felt totally insignificant, a mere speck in the universe. A nearby shot broke my train of thought, closing school for the second time.

### A Better Morning

Above me on the ridge I saw another hunter working slowly past me. From the bulge in his game pouch, I could see that he was having a better morning than I. He looked about 60 and was carrying an old, worn single-shot bolt action 22. He hadn't seen me, so I settled down to watch. He gingerly made his way toward a large oak. Just before he reached the tree, he raised his rifle to his shoulder and pressed himself flat against the trunk before sliding slowly around it to his right. Crack. A plump gray squirrel fell out of the treetops and landed only 30 yards away from me. Although the squirrel had been well within my range, I hadn't even known it was there. I realized that now was a



good time to go back to school on squirrel hunting, and that my teacher was standing behind an old oak about 60 yards away.

The old-timer had not moved since his shot. It dawned on me that in his position he blended in with the tree trunk while he scanned the surrounding forest. It wasn't long before he slowly reached for the bolt of his rifle and carefully and quietly reloaded his battered squirrel gun. He marked the location of the downed bushytail, took a glance back into the treetops, and stepped out from the cover of the oak. He moved closer to me, then stopped by a fallen tree and crouched down to rest his rifle on a branch as he sighted toward a group of maples and waited. I followed his line of sight, but was unable to see anything until a slight breeze lifted a tail on what I had thought was a branch. Curiosity got the best of the nutcracker. The squirrel ran along his perch to get a better look at what was crouched behind the blown down tree. When the squirrel stopped, the old gent's gun cracked and another tasty meal was added to the bag.

I was just about to go congratulate my unsuspecting teacher when he suddenly stood up, reloaded in a blur of motion, and then whistled loudly! A fox squirrel trying to escape was frozen by the unexpected whistle and a well placed shot rolled it neatly. This old-timer had just bagged three squirrels within range of my rifle, and I'd had no idea that any was there. Stunned, I finally realized that silence, patience, and concentration were the missing elements of my squirrel hunt this morning. I had been too involved with the mountain and not enough involved with squirrels.

Basic rules of hunting bushytails somehow had escaped me, but this old-timer had reminded me of lessons I'd forgotten over the years. By the time I

came out of my reverie the oldtimer had gathered his squirrels and was moving on up the ridge.

I continued downriver, trying to emulate the quiet, effortless stride of the old hunter, while stopping occasionally to look for a fluff of fur dangling from a limb or to listen for the telltale scratching of claws on bark. Before long I began to feel comfortable with the stride and more in tune with the forest itself. An old tree ravaged by lightning stood about 40 yards away, and I was sure I had seen a flash of gray coming down its trunk. Easing to my left, I put a laurel patch between my quarry and myself, intending to get a better shot. Slipping quietly forward, I brought my rifle to the ready and tried to make myself appear like a laurel bush. When I was in a good shooting stance, I pushed the laurel aside to find not one but two gray squirrels working the acorns at the base of the tree. My first shot dropped the one perched on a low branch. Without hesitating, I stepped quickly forward, levering another round into the chamber, and searched for the second. It popped up at the base of a log and turned to find the source of the shot. The second round from my Winchester was on target and he tumbled into the leaves.

### Merits of Schooling

As I admired the pair of bushytails I reflected on the merits of schooling. From books I learned to appreciate the history and geology of one of the fine regions in Pennsylvania. From an old sage I learned to appreciate the mountain's wildlife and to more fully enjoy the natural beauty of a fine game animal. The morning had ended on such a satisfying note that I decided to continue my hunt by searching for grouse that afternoon. I was especially interested in finding two smart aleck birds that were responsible for my soggy pants.





BOB SORRETT



# *The Bend in the Creek*

By Ken Wolgemuth

AT THE EDGE of a small town in Lancaster County, a shallow green creek, flowing out of the north, makes a lazy bend. Turning west, then south, then east, it forms three sides of a rough rectangle around some 20 acres of ground on a wooded ridge. The road from town dives sharply into the creek's little vale, crosses the water on a 19th century stone bridge, and passes on between the ridge to the left and the east-flowing leg of the creek to the right. In years gone by one could park just off the road, walk past the bridge and turn right, up the hill, into a small, weedy meadow. Beyond the meadow, trails wound through beech woods and thickets, and skirted the rim of the steep-shelving cliffs that looked down on the stream far below.

On October 16, 1985, I drove over the bridge and stopped suddenly in the middle of the road. There, at the base of the hill, was a mailbox; next to it a gravel driveway angled up the brushy bank. I put the car in gear and drove on. At that moment a chapter in my life—a chapter that had spanned more than 20 years—came abruptly to an end.

I was introduced to this place, the bend in the creek, in 1964 on a first-grade field trip. The details of that day are, for the most part, forgotten. Memory has distilled from them a single moment, a symbolic instant, selected and forever frozen. I see a group of wide-eyed children, the old stone bridge, and, by the bridge, a milkweed pod spilling its seeds to the wind. All is bathed in a shimmering golden light—a light of the mind, a light that never was. To recall this image is to know once again the thrill of childhood discovery, and the delicious, unparalleled freedom of a school day spent outside the classroom.

A decade later, as a high school stu-

dent, I found myself drawn back to the bridge. I went there regularly, in fact, and walked at all seasons and at all times of day. I fancied myself as a scientist then, and I carried the tools of my trade: binoculars, a hand lens and several field guides. I peered and I probed, and I wrote down all that I found. I made lists, countless lists—lists of birds, mammals and insects, of flowers and trees. I made notes on cloud cover, temperature, snowfall, and the direction of the wind. At home I read books, and at the bridge the books came to life in the woods and on the streambanks. I became obsessed with the numbers and the overwhelming diversity found in nature. Growing things, flying things, creeping things—I identified them all, and attached to them their English and their Latin names. The lists grew and grew.

And then I left, went to college in another state, and began exploring a larger, more exotic world. By the time I returned the lists were gone, the old notebooks lost somewhere along the way. And with them was lost the evidence, the documentation, the hard, statistical proof I need to back up this, my declaration: that within the bend in the creek, on 20 acres of upland, there lay a paradise, a treasure trove of natural marvels.

## Over 50 Species

This much I can tell you: there I found over 50 species of birds, from sparrows and warblers to woodpeckers, kingfishers, herons and horned owls; that the woods harbored squirrels, chipmunks, skunks, raccoons and weasels, even a few deer; that in March, while ice glistened on the shaded cliffs, mourningcloak butterflies danced in the spring sun, and stoneflies could be found at the water's edge; that in April trout lilies and

bloodroot spread carpets of yellow and white beneath the bare trees, and fiddleheads, mayapples and Solomon's seals began to rise through the rich dark humus of the forest floor; that May brought a green explosion as buds burst and leaves stretched among the bare, interlacing branches overhead; that, in the summer, morning brought woodchucks to nibble at dandelions, and evening fell to the clear piping of thrushes deep in the shadowed woods.

After college I resumed my explorations for a couple of months, but then I left once again, this time for another country, on another continent. I discovered in two years what many travelers have discovered: that I was the same person on one side of the Atlantic that I was on the other, and that anything I might wish to learn could best be learned at home. And so I returned to the bridge, to the bend in the creek.

It was at this time, in 1982, that there came the first ominous hint that some sinister plot was unfolding in my sanctuary. One December day I found the little meadow newly mowed, and stakes planted here and there with pink plastic ribbons fluttering from their tops. Still, I resumed my regular visits, and when, after a couple of months, nothing more seemed to be happening, I gradually ceased to worry.

### Mark of Maturity

By now the character of my walks had begun to change. Perhaps it was a mark of maturity, but, whatever the reason, I stopped making extensive lists. I no longer cared to note when a particular migrant passed through, when a certain species of flower bloomed, or how many eggs were in a mallard's nest. I still carried my notebook, but I wrote less about what I saw and more of what I felt. I became less of an observer of nature, but more of a participant in it.

On May 17, 1983, I spent the early evening at the bridge. A cathedral light permeated the woods, dusty golden rays angling to earth through a wind-dancing canopy of leaves. Somewhere



**I STILL CARRIED my notebook, but I stopped making extensive lists. I wrote less about what I saw and more of what I felt. I became less of an observer of nature, but more of a participant in it.**

in that canopy was an owl, and the crows had found him. I never saw the owl, but the sound of the crows, the commingling of two dozen or more recognizably individual voices, carried notes of such utter rage that I had no doubt of his existence. It was a grand cacophony, and it rang in my ears. It set the leaves and the spiderwebs to jangling, to echo from the ground and the flanks of the hills till the sky itself was filled with sound. Part of a dead tree had fallen across the path where I stood, and from its trunk sprouted a red-brown clump of convoluted fungal lobes, wafer-thin and glistening as if covered with dew. On one of the lobes was a fallen dandelion seed, and its cottony plume shimmered in the last of the sunlight. I prepared to leave. The crows continued to call and scream, and I pictured the owl, hugging the trunk of his tree, motionless, his eyes hooded against the sunset. The fungus glistened wetly. The down caught a puff of air and sparkled. I touched the bark of the fallen tree, felt the rough-



ness under my hand, and found myself suddenly transfixed, suddenly rapt in astonishment at the majesty of a moment unfolding in time.

A year later, in March, I walked for an hour in the afternoon. Crows flew high that day, alone and in groups, calling and sporting on the wind. The pale sun gave little warmth. The meadow looked like a frozen marsh or some desolate heath. The weeds and grasses were short, no more than tufts, sere and brown, glowing faintly in the low-angle light and stirred subtly by the wind. The small clearing, the bald head of the hill, windswept, surrounded by pale leafless sycamores, was singularly lonesome. A mile from the edge of town, it seemed not a part of the common earth.

I sat there, listening to the rustle of withered stems, trying, as had Thoreau, “to hear what was in the wind,” and waiting, as did he, “for the sky to fall, that I might catch something.” What news, I wondered, what revelations, might a man hear on this humble rise; what treasures might he catch at last, given only time enough to wait?

Given only time enough . . .

Nineteen days later I returned to find that things were changing once again. Across the middle of the meadow, in a strip 15 feet wide, some 70 white pine seedlings had been planted. Near the bridge, a pair of stout square posts had been set, one on each side of the path. They were the sort of posts generally linked by a chain. Obligations elsewhere kept me away for the next 18 months. When I returned it was to find the mailbox, and the driveway, and a house up in the meadow.

The bend in the creek is not the only spot of its kind; it’s simply the one I had the good fortune to know. The countryside of Pennsylvania is dotted with small towns, and each has its enchanted corners. Each has its ragged fringe where the houses thin and the roads begin to wind and dip. There the realms of man and nature overlap and intertwine. There are hidden the leafy,

neglected nooks, places of light and of quiet; and there a man, walking the forest paths, peering into the waters, studying the world around him, may come to learn, in some inexplicable fashion, about himself.

Over the course of our 20-year acquaintance, I changed and the little ridge changed. I grew older and taller, changing irreversibly. It changed from month to month, from day to day, from minute to minute in thousands of separate details—yet all remained in balance, all was recycled, renewed, continuously rejuvenated. In the end, in an ironic way, this situation was reversed. In the end, man came in and changed the little ridge—or at least a part of her—irrevocably, once and for all. And in the end I went away knowing that a human life has its cycles, too—that renewal is possible, if not in a physical then in a spiritual sense—that a man, if he is patient, if he is receptive, can experience the world with the wonder of a child.

### Chance Gone

The chance for further exploration is gone now. The meadow, once so wild and lonesome, is now a lawn. The woods are still there—they have not been destroyed, yet—but they are closed to me now. The ragged fringe of the town is filling in, slowly but surely.

The loss of wild habitat is a threat not only to wildlife, but also to those of us who need, for proper functioning, an occasional infusion of open air and rushing waters. And so I take what I have learned, and I carry it with me to what remnants of nature are still open for me to explore. If I cannot have the woods, then maybe a weedpatch will do, or a vacant lot, or simply a leaf-filled puddle in the broken sidewalk. And I also carry certain gifts from the bend in the creek—visions, moments in time, preserved forever in the starlit wilderness of my memory and my imagination. I carry the sound of crows, the roughness of bark, the tang of the autumn air and the sparkle of a fallen dandelion seed in the sun.

# Let's Plant Chestnuts!

By Charles Rupert and W.W. Rupert



**Q**UITE A FEW years ago we acquired some large chestnuts from a doctor who had cultivated the trees a few years before. They, of course, were of the Chinese strain and were excellent eating. We planted some and found that to raise them by the nut planting method was not the answer, for the chipmunks, squirrels, and even foxes and raccoons were prone to dig them up. We realized then that we must practice a simple system whereby we could easily get the nuts to germinate, then plant them in a safe place.

Here is what we found to be sure and affordable. First, find a supply of large chestnuts of Chinese strain. Gather them as soon as possible after they fall,

and plant them at once. Nuts that lie around and dry out will not grow. Get some good, loamy topsoil and several boxes or five-gallon buckets or styrofoam containers in which to plant them. As we experimented we found that peat moss could be used instead of topsoil. Place about five inches of soil or moss in the container, then a layer of nuts, more soil, then more nuts until the container is almost full. Dampen the soil, then cover the box with wet sacks and place in a cool basement. Water sparingly only a few times during the winter months. Do not water too often or the nuts will rot.

When freezing weather is past, fill three-pound coffee cans (with many holes cut or punched in the sides) with good topsoil, and plant one nut in each can. (Nuts that show good signs of germination should be planted.) Bury these cans in rows or beds with just the top edges showing. Keep weeded and water all summer. When transplanting, always plant in uncrowded places in the sun; they will not do well in the shade. Leave in can until given a good home (one to two years). Be sure to fence in your bed of cans, and also place wire around each planted tree (the rabbits love them!). Cut the can away before permanently planting. Ask local sportsmen and sportsmen's clubs to get involved. Such efforts can result in valuable food for all of wildlife, so let's put forth a little effort, and plant chestnuts!

## Thoughts While Walking

*The people never give up their liberties but under some delusion.*

—Edmund Burke



# The Deer Hunter's Primary Tool

By George H. Block, III

**S**OME HUNTERS are more fortunate than others. Poor Luke may hunt twenty years, never savoring the taste of his own venison, while Bill gets a buck every year. How can this be?

In the December '84 *GAME NEWS*, I related the story of my family's successful deer season. Opening day of that hunt had found me tense and worried because our son was hunting with a broken leg and crutches, and a heavy downpour made it difficult for him to get into the woods. But once he had labored up the steep hillside to his stand, the whole picture changed. By noon we all had our bucks, the rain had quit, and he was feeling no pain. That was an unusual season, but not really unheard of in hunting circles.

As the next season approached, I found myself with many misgivings. Things had been too easy the previous year, and many times an easy season will be followed by a tough one. I've often thought of it as the law of averages, but such was not to be the case. Again we would all have our bucks the first day, although it would take a little longer. Pat and I were to score well before noon, but Eileen didn't get her 6-pointer until 12:20. We were overly lucky that day, for besides getting three deer a deputy game protector stopped



**THE CONSISTENTLY** successful hunter recognizes the need for preparation. Here, Block studies a scrape, one of the signs that show a buck is in the area—as scouting indicated there would be.

to check on our success. Seeing the distance we had to drag our kill, he volunteered to haul them out. Thank goodness for friendly game protectors! Pat's 9-pointer was the largest deer, but my 10 and Eileen's 6 were also of good size.

Is it luck that separates the consistently successful hunter from those who struggle hard for years just to see a buck? Perhaps it's a secret hunting Valhalla where great bucks abound. Or a lucky charm, maybe? Maybe, just maybe, the consistently successful hunter recognizes the need for preparation.

The golfer who shoots in the 80s or the bowler who consistently tops 200 didn't get that way without practice. Why, then do countless hunters think their sport is different, and expect to go



**SIZE OF THIS RUB** indicates buck was a big one. A large buck will sometimes rub a sapling or small tree, but a small buck will seldom rub a large one.

afield and meet with roaring success without proper preparation?

There are many tools the hunter can use to better his odds, such as proper choice of equipment and sighting in. Shooting practice is very important, but few tools for success can be placed above scouting.

Scouting was the primary reason we all scored last year, for only many hours in the woods told us where the best crossing was. During the fall, one crossing had stood out above all others, and when opening day arrived, Pat was there. Legal shooting time in our neck of the woods was 6:50, and he had his 9-pointer by 6:55. At 7:45, I was on his stand and shot my buck at 8 o'clock. His mother posted the same stand, and at 12:20 her buck showed up. One shot from her 270 and our season was over. Now, we've been around long enough to know that not every season will be so simple, but we also know our long days

of serious scouting had paid off.

During trips afield in the summer months, I thought I'd noticed a change in deer movements in this end of the farm. While the orchard was still used regularly, more often than not tracks seemed to exit from the side instead of from the far end. This was tucked away in my memory banks last year when I was pushing for my nephew George Daniels. Old habits can be hard to break, but the sign I'd seen through the fall kept nagging me. George was impatient to get to his usual stand at the far end, but I stopped him. "Go to the right side instead." He looked at me quizzically, but shrugged and did as he was told. Fifteen minutes crawled by as I waited for him to get into position. Moving very slowly, listening for the sound of brush breaking, I pushed through toward the open pasture. Sure enough, about halfway through I heard his 25-06. The buck had broken out the side, and thanks to a little scouting and George's willingness to break an old habit and follow instructions, he got his buck. Sometimes you don't have to see the deer, for their tracks can tell you what they're doing.

### Two Good Sources

While I do some scouting year around, I put the most stock in the information I collect in the fall. Deer habits change through the year, and the closer it gets to legal hunting days, the more important the scouting becomes. While deer may be grazing on alfalfa in early summer, they will probably be seeking other food by fall. In our area, cornfields and mast are two good autumn sources of food.

This is the time when antlers are at their full development and the bucks start leaving telltale sign. Rub trees are made at random and generally tell the observer that a buck is using the area. Deer usually live out their lives in a restricted range, so it makes sense that if he was there yesterday, he won't be too far away tomorrow. Rub trees also can be an indicator of the buck's size. A large buck will sometimes rub a small



tree, but a smaller one will seldom, if ever, rub a large one. Scrapes are the real indicators of a buck's home territory. These odorous messages to the doe are territorial, and you know he won't be far away from an active scrape. The buck will invariably leave hoofmarks in the scrape, and they are an indicator of size. More often than not, his antler tines will also leave sign.

In Pennsylvania, bucks seldom make active scrapes before the middle of October, so this is when I begin to study scrapes seriously. I've found them as early as late September, but these are usually made by immature bucks acting like the teenagers of our own species. A really good scrape will always be made under an overhanging limb or brush. The buck will often tear up the limb and leave scent from his face there. If the scrape is active, there will be a good chance of actually seeing him—if proper precautions are taken. Anyone who thinks he can disregard the wind and other factors just because a buck is in rut is foolish. He might be more careless than usual, but he still won't tolerate your odor.

A good way to get a buck to return to a scrape is to bait it. Just place a few drops of doe-in-heat in the scrape. Sometimes this will keep a buck returning until you get a chance to see him. Scouting means more than just watching for bucks sign, though. Many times it means being aware of the topography of an area.

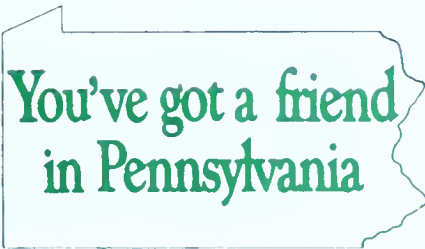
Nothing is more positive than actually seeing a buck. While checking late season sign, I've spotted and photographed many a good buck. One in particular stands out. On a mid-November morning I spotted him working a well developed scrape. As was my custom while checking scrapes for fresh sign, I was toting my camera to maybe take a few photos for future reference. The light was poor when I saw him, and I thought for a moment he was sick and throwing up. Now I don't know if deer ever do such things, but that's what I thought as he stood there, all humped up in the middle, head

close to the ground. Then I realized what was happening. He was urinating down his rear legs into the scrape he straddled. Then he stepped back and, like a dog in a pile of cow manure, rubbed his head and neck in the mess he'd just made. With his antlers and head he worked the overhanging branches, anointing them with scent from facial glands. Steam came from his nostrils and his eyes rolled strangely.

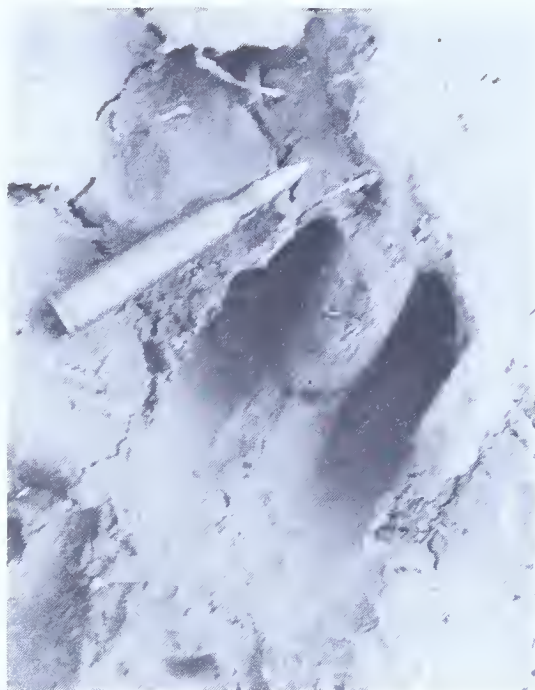
### Angry Eyes

I watched these actions repeated over and over until I finally tired of observing him and decided to move on. Waving my arms, I tried to chase him away. He didn't move. He just stared at me with head low and eyes angry. I yelled and kicked the brush, but still he threatened me. Guess what? I let him have the trail and circled around him through the brush. As I departed, I could still hear him working that scrape, probably thinking how he'd chased off a rival for his lady fair. In scouting, nothing equals seeing that buck for yourself.

Scouting, though, should not be strictly a fall pursuit. Tracks in January's snows indicate deer locations. January is also the month to find shed antlers which tell of bucks that made it through the previous hunting season. Bedding areas and trails near last fall's rutting activity are the prime places to look for these. Snow can hide them, but if it's not too deep, they're not impossible to find. Finding buck evidence in January or February really stimulates me, for it means next season there will be a good buck running in the area as he gets another year under his belt. Scouting, though, means more than just watching for deer and deer sign.



You've got a friend  
in Pennsylvania



**TRACKS ARE** positive proof that deer frequent a specific area, indicate direction and possibly time of movement. Cartridge gives some idea of size.

A few years back, when I was going to hunt a new area in Warren County, I decided to take an early trip to the mountains to check things out. My buddy and I had never hunted around Grunderville, so on this crisp October day we intended to investigate the area thoroughly. The forest was a riot of color as we moved south around the curve of the mountainside, always working upward. We spooked a few deer in the process. Their white flags dodging trees and blowdowns started the old adrenaline flowing.

Deer trails paralleled our course, and finally we came to a gradual roll in the mountainside that funneled up to the flat on top. It was here we rested, and I decided it was here that I'd spend opening day. Upon our return to the car, the first thing I did was dig out the old topo map and study it intently. The story it told was as plain as if narrated by Lorne Greene. The funnel to the ridge was there, as were the roads and trails surrounding the area. Every line on the map practically screamed "hot-

spot," indicating how the movement of hunters approaching from the roads should push deer right up that roll, funneling them to where I'd be waiting on the ridge.

The natural crossing on that ridge was a gradual roll at least 300 yards wide at the top, so opening day found Ed posted on one side and old GHB on the other. Did it work? Well, for four consecutive years, both Ed and I took our bucks from those stands. Everything was right: the lay of the land and the position of the roads creating a "can't miss" stand. Things eventually went sour when the timber company put a road right through the middle of the stand, which changed the pattern of hunter movement.

Scouting had paid dividends in this instance, but the scouting had meant more than just watching for deer sign. It had included a study of topography and a knowledge of hunter movement. With such information, a hunter can predict where deer will be when opening day activity heats up. It's only a case of making the effort to acquire this information.

### To Be Pitied

The hunter who takes time to scout his hunting bailiwick extends his season to the limit. Actually, the once-a-year hunter who never sets foot into the woods until opening morning is to be pitied. His season is very short. My deer season can extend 365 days a year, for every minute I spend in preparation is an important part of the hunt. I may not be out every day of the year, but I could be. I'm in the woods at least some days of every month, looking for deer and deer sign. Following the season, the woods is harsh and cold. But it's also the time of tracks and solitude. The fox leaves paw prints in a straight line as he searches for his dinner. The field mouse tunnels under the snow, and the whitetail cannot travel without leaving evidence of his presence. Winter is a good time to be out. So is summer. The thrill of spotting a great buck in August might not be as great as



it is during the first week of December, but it's still exciting.

I remember vividly the first set of antlers I see each year. In the summer of '84, Eileen and I watched one that we dubbed "Old Dummy." He approached from our right, picking his way through sparse cover without a care in the world. With short stubby velvety antlers, he wasn't anything to brag about, but he was the first we'd seen that year. Walking past us at about 30 yards, he lazily approached a four-foot fence that separated the cover from a lush alfalfa field to our left. The fence seemed too much for him as he stood there, stretching his neck through the wire to nibble a few choice morsels. Back and forth he went, for at least a hundred yards, testing the fence for an opening. Finally, in what appeared to

be total disgust, he turned and went back the way he had come. Now, as I know he could have leaped that fence easily, I figured he was a dummy, or he just thought the food on the other side wasn't worth the effort. But we watched that buck for about a half-hour and enjoyed every minute. That's part of the thrill of scouting.

A knowledge of the hunting grounds that is priceless; knowing the bedding areas and feeding areas; seeing deer; discussing probable hunter movements, and the pure pleasures of just being outdoors—these are the things that make scouting worthwhile. Scouting is the deer hunter's number one tool, and one of the two most important things he can do to bring consistent success. More on the second aspect of successful hunting in another article.

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## *Books in Brief...*

(Order from publisher, not from Game Commission)

**The Outdoor Life Deer Hunter's Encyclopedia**, by John Madson, George Haas, Chuck Adams, Dwight Schuh, and Leonard Lee Rue III, Outdoor Life Books, 380 Madison Ave., New York City 10017, 788 pp., \$49.95. In this case, the term "encyclopedia" is correct. It would be hard for the layman to find any aspect about deer hunting that isn't covered by one or another of these five experts. It begins with the evolution of the deer family, discusses deer of other continents as well as North America, and goes into the problems of management. Firearms and shooting are covered, as well as the bowhunting approach and hunting gear. All conventional—and some unconventional—hunting techniques are explained, and detailed chapters tell what to do after the deer is down. There's even information on cooking, taxidermy and tanning, and for the off-season hunters, Lennie Lee Rue gives hard-earned advice on photographing deer. To wrap it up, the deer situation in each state and Canadian province is covered individually. An awful lot of work went into this book, and there's no doubt that any deer hunter could learn from it.

**EVEN THE LAST SIX, And Other Stories**, by Bob Bell, illustrations by Ken Laager, Northwoods Publications, Box 5005G, Harrisburg, PA 17110, 207 pp., \$21 delivered. These 32 stories are at once a mini-history of World War II and a study of the travels of a young veteran looking for his place in a world that doesn't always agree with him. There are offbeat hunting stories like "The \$4000 Spike" and "Ginny and the Red Bear" . . . when the bear is a hulking knife-wielding backwoods drunk; Idaho logging camp stories which have nothing to do with logging; an elk hunt that's actually about a fugitive in a Chicago bus station. Some of these stories are rough, some are raunchy, others are tender or funny. They follow many paths, but they all end with the same conclusion: Bob Bell is a man who is happiest and most complete when holding a rifle.—*Jim Bashline*







# Take Two

By Joe Kosack

**A**LMOST every trapper has a few unmentionable stories for every year he's slopped in the creeks and pounded through ice and earth to make sets. I guess it's just human nature that occasional mistakes are made.

Over the years my traplines have provided many highs and lows. I can still remember my first muskrat, raccoon and mink. Along with these memories are encounters with close shaves, busted equipment and difficult furbearers. Still, I wouldn't have it any other way. I thrive on the mysteries and hardships and the immediate actions they warrant.

One of my never ending challenges on water traplines is water. Sometimes it's just stepping an inch in the wrong direction. Other times it's a flagrant violation of common sense. For example, last season I was trapping on some finger-like isles in a creek 30 yards wide. After two days this area received a deluge of rain that lasted from Friday supper until Saturday breakfast. As I walked the line that morning I found the creek had crept onto portions of land it had not touched for years. My first isle was covered by water and I expected more of the same as I headed upstream to check my other sets.

As I closed in on my last one, though, I noticed something odd.

"Yes, by golly, that's a coon clinging to a sapling on the island," I told myself. But reality interrupted my joy. How was I going to get it?

I stared at the murky water and shook my head as it rushed by my perch on the bank. Then I stared at that coon. Boy, it was a dandy.

I soon found myself testing the waters near the isle. Inch by inch, I moved into the brown rage of the swollen creek, probing the bottom with my

feet. I must be crazy, I thought as I glanced at the water, which was within an inch of topping my hipboots. In no time, though, I was within 10 yards of the island and the taste of my small victory overwhelmed me. I paused to study that old ringtail. He was just as interested in me. The old boar was dancing on the limb and nosing the air currents to learn more about me. Then it happened. He shoved his nose too far and fell out of the tree.

## Only Landing Point

Spitting mad, the raccoon splashed my way like a half-submerged propeller. I'd have to catch him by the back foot, I thought, as he used his forepaws to power his unplanned float trip right at me. After all, I was the only landing point in the immediate area.

As the distance between us narrowed, I started to do some serious thinking. My options were simple: inch it quickly back to shore or make a dive for it. I started my turtle tap dance to the bank.

As the furry floater closed to within a few yards I could hear those jaws snapping; I knew another one of those quick decisions was due.

When I felt a little bump on the backside of my hipboots, I made a dive for the bank, which was only a short distance away. But the open tops of my boots caught the water's surface and stopped me cold. Too much lean in the dive, I thought, as I flailed my way onto the bank.

I crawled out of the creek, chilled and disoriented, but with the image of that snapping coon still hot in my mind. Jerking my head around, I saw him. He was still where I'd seen him last, five yards from my watery launching platform.



**SPITTING MAD, THE RACCOON** splashed my way like a half-submerged propeller. I was the only landing point in the immediate area.

After wading in once more and dispatching the animal, I found the drag on the trap had snagged a submerged limb. In short, the coon hadn't been going anywhere beyond that point, and my dive had been unnecessary. The bump that sparked my dive was probably nothing more than floating debris. Still, after I drained my hip-boots and stared at the ringtailed rascal for a moment, I decided the experience was worth the dunking. Think about it. Most people pay to enjoy high adventure, but I got this sampling for free.

Because trapping demands that a furtaker check his traps as early in the day as possible, many of us head afield well before sunup. Let me tell you, the darkness holds plenty of surprises.

### Left In a Hurry

Early one morning about four years ago, I was checking raccoon traps along a creek. A set had scored. The only problem was, I had a drag on the trap and the animal had left in a hurry. Using a flashlight, I started searching above and below the set. There was no sign of struggle. After awhile I became disoriented so I headed back to the creek to find the trap site again. As I

closed in on the set, I resumed my search for signs of the animal or the drag it was pulling.

A short time later I found what appeared to be promising drag marks. I had just hunkered down to take a closer look at them when, all of a sudden, a raccoon dropped out of the air and smacked the ground about six feet from me. He had climbed into a tree, taking the drag with him, then fell out of it, almost on top of me. Now he made a lunge to get away, but my trap, stuck in the tree, appeared to have him contained. Then the coon reversed its escape direction and came at me.

On this occasion my dive worked beautifully. That is, until I landed in a multiflora rose bush. I sat there as the coon chewed on the flashlight I'd dropped, pondering the situation. Truth is, he had me prisoner. I couldn't chop a hole through that multiflora nohow. So I had to get out the same way I went in. That old rascal kept me there five minutes until he attempted to flee in the other direction again. Then I made my escape.

Getting the flashlight back took another ten minutes as I stumbled around in the darkness to avoid the coon. But once in hand, I could see the raccoon



again and routinely dispatched him with my revolver.

Although the darkness of that day offered some peculiar trails, it did allow me a triumph—ignoring my loss of dignity, of course. Still, I learned to look in trees for raccoons on drags, and this has helped me in my trapping experience.

Trapping and hunting have never gone hand in hand with me. Six years ago, when I went on permanent leave from the Army, Tim Burke and I decided to run a raccoon trapline in a remote valley between Sharp and Second Mountain. During the first three days of trap checking, which was a 12-mile round trip effort, we several times saw turkeys crossing the old dirt road ahead of us. We flushed a few, too, while checking traps along the valley's hemlock-bordered stream.

Because of these sightings, we started carrying shotguns. The next few days, though, the turkeys couldn't be found and the shotguns began to get heavy.

One day Tim and I checked our traps individually. Wouldn't you know it—I flushed three turkeys. All I could do was point my walking stick and mutter, "Bang, bang."

The next morning, Tim enthusiastically greeted me at the mouth of the valley. "I chased one off its roost while I was running the line yesterday," he said.

I told him about the three I had seen.

We wasted no time getting into the woods that day. Stealthily, we moved up the creek, each covering a bank. Our journey up the valley, however, produced only four raccoons, no turkeys.

Walking out on the dirt road, we maintained our interest for some time, moving quietly and speaking only in whispers. But when we passed through the areas where we had seen turkeys earlier and none appeared, our spirits sank. We began discussing the good luck we'd had on coons and the job it

was carrying the critters out.

We were about 150 yards from the cars, shotguns over our shoulders and talking up a storm, when it happened—a turkey raced across the road in front of us. I shot as quickly as I could, but too late.

We raced to where the bird had disappeared and were peering through the woods when, suddenly, about a dozen turkeys erupted from all around us. Shock, not to mention surprise, overwhelmed us.

Four quick shots echoed through the valley. My last one dropped a turkey just as it reached the tops of the tall hardwoods surrounding us. As I watched mine fall, Tim was busily reloading his double barrel. He hadn't fared as well. But as I started toward my bird, which had dropped behind some mountain laurel, Tim asked me to wait while he surveyed the area for another bird.

### No Bird, No Blood

Feathers were still drifting in the air when I got to the place where my turkey had dropped. But there was no bird, no blood, and no hint of where the bird had gone. I studied the surroundings for movement, but all was still. And it remained that way until we left.

We still talk about that encounter, which was really our introduction to turkey hunting. But I learned one thing from the episode—number 6 shot won't bring a turkey down at much of a distance when I'm behind the gun.

Traplines, as you may now see, breed a host of experiences for the participating outdoorsman. But good or bad, trapline memories stay with us as time passes. Remember, trial and error is the path to outdoor enlightenment for many of us. And this path wouldn't be half as adventurous if it were predictable. So, as far as I'm concerned, I'll take two aspirins for the bruises received and try to do it right the second time around. How about you?

# Pup's First Year

By John D. Taylor

IT WAS THE third day of pheasant season and I already had my doubts.

Saturday, opening day, had been, to put it mildly, a fiasco. Jack, my nine-month old German shorthair, the pup who during our earlier livebird sessions had shown so much promise, was acting like he'd been plucked straight from a gun-dogger's nightmare. He coursed the horizons like a Southern quail-finding machine. On Georgia bobs, that might have been all right. But on Tom King's wild York County roosters, it resulted in busted points, birds flushing everywhere, and a bug-eyed shorthair that acted like he'd been turned loose for the first time in his life. We quit at 10:30 that morning. I had a headache and Jack had an owner who would have sold him for a nickel.

## Redeemed

On Monday, Jack redeemed himself. He pointed two of the three roosters we found that morning (could have pointed three if the crazy bird had co-operated). He hunted within what I consider to be good range, and he covered ground like a four-legged vacuum cleaner. It was a clear case of Jekyll and Hyde on Jack's part. However, I was Monday's problem. Saturday had rattled me so badly I couldn't hit any of the birds he found. On each shot, I pulled my head off the stock, constantly fearing a Jack-inspired catastrophe, and missed all three birds.

Tuesday morning rolled around bright and promising. My confidence was back to an acceptable level and Jack obliged nicely to commands, hunted within range, and worked like a champ. The trouble was, we couldn't find a bird.

Then it happened. Jack cut through the hedgerow we were paralleling, trotted into the foxtail-covered field beside it, and slammed into a point. At

first, I didn't believe him. The fox-tail was only six inches high—barely enough to cover a tiny quail let alone a big gaudy rooster.

"Come on, Jack, quit fooling around," I moaned. Jack remained staunch. Then he cast a curious eye back to see if I was coming in.

I'd intended to keep on moving, past his point, and say the heck with it. When I started to do so, a mottled-brown eruption burst out of the grass. Hen bird!

"Good boy!" I figured any game bird he pointed was worth at least one good boy. Jack, however, remained staunch.

That was unusual. He wasn't trained steady to wing-and-shot (I, of course, didn't shoot at the hen) and under normal circumstances, he would have broken and chased the bird a short distance. His staunchness made me wonder if there could be another bird in the grass.

"Easy, Jack," I cautioned. I moved in, now interested in Jack's opinion of the situation.

The answer came in a millisecond. Grass swished in front of my foot and a big rooster screamed ancient Oriental curses as he rocketed up.

My first shot was a strange one. It cut an improved cylinder pattern out of the rooster's tail. The second shot was more deliberate. The Daly swung through the bird and its modified barrel fired just as the bird was about to slant behind a late dropping patch of leafy sumac.

Wonders never cease! The bird fell.

The next moment was a blur. Jack was closing on the rooster and I was close behind him. When he reached the bird, Jack hesitated for a moment, then mouthed it and started back to me.

Poor Jack! I don't believe he'd ever before been lavished with such praise. I wanted to impress upon him that







what he had just done was even more important than his first successful “business” transaction outside the kitchen door.

I laid down the Daly, snatched his front paws, and we danced the two-minute “Hoot ’n Holler Yahoo” jig. Jack was a bird dog! I guess he got the message, too.

### A Season’s Experience

Now that Jack has a season’s worth of experience on roosters, grouse, woodcock, and doves, I can look back on moments like that one and laugh. (I’m glad Tom Fegely wasn’t there to film the incident, though. We would have looked pretty foolish.) More importantly, I learned a little something from the experience. Were I now working with a first-season gun dog, I’d have a better grasp on reality.

Gun dogs have a way of humbling the greatest egos. Part of that has to do with being human. The ego is a frail thing, easily damaged by Pup’s indiscretions. That was especially true for Jack and me. He had just about ruined my desire to hunt pheasants with him after the first Saturday fiasco. On Monday I really hadn’t wanted to take him

along. I was ashamed of how he might behave. Looking back, he should have been ashamed of me. I lacked the primary element every gun dogger should have an especially large dose of—patience.

In spite of how well Jack had done in earlier training, that Saturday he was off cue. A couple of things might have caused it. I don’t doubt he sensed the excitement my hunting partner Mark and I had for the first glorious day of (real) bird season. Having to wait until 9 a.m. (we arrived at 8:30 to chat with the landowner) probably hadn’t helped much. Jack was raring to go the minute I picked up my orange shell vest and put the whistle around my neck at home.

Patience is something a gundogger should never run out of. Patience should also be viewed on a larger scale than I’d viewed it on. You should expect a bad day now and then. That’s not to suggest any serious violations of discipline or training should go unchallenged. But if you have a bad day, maybe it’s time to take Pup home and hunt without him. Tomorrow is another day. Maybe his—and more importantly your—attitude will be more

**PATIENCE IS SOMETHING** a gundogger should never run out of. You should expect a bad day now and then.





compatible tomorrow. Let's hope so.

The second big lesson I learned since that first season was to kill as many birds over pup as possible. Experience, after all, is the best teacher, especially for a gun dog.

When Jack and I left the house on Wednesday morning, I noticed a change in his behavior. It was as though a switch clicked and a light bulb went on in his brain. As the season progressed and more birds fell in front of his points, he got better and better.

Practice makes perfect, especially for gun dogs. Habit, routine and similarity play important roles in a dog's life. Consider feeding time. If Pup gets his grub every afternoon at 4:30 sharp, he comes to expect it then. Come home late some evening and guess who'll be standing by the food dish prancing impatiently. Handling birds correctly, if repeated often enough, will also become habit.

Regardless of what you have to give up, hunt Pup as much as possible the first year you take him afield. If you do that, your odds on finding birds increase and Pup's repetitive cycle of learning gets a real boost. It's sometimes tough to give up football games for bird hunting, but the rewards you'll reap will be worth it.

With Jack, I thought I had a real crackerjack going into bird season. Little defeats, occasional bumped birds and other small indiscretions, were harder to swallow because of my preconceived notions. That was my fault. I should have been prepared to accept small defeats on occasion regardless of how well Jack did during his early training. Game birds, after all, are not pigeons.

Again, major repeated breaks in training or discipline shouldn't be overlooked. However, if Pup bumps a bird now or then or fails to take a hand signal quite right, so what? It might not be entirely his fault, especially in the case of pointing dogs and grouse or pheasants. Those birds are far more inclined to slip a point than squat. Woodcock are a different story; they'll



#### Question

I understand that persons under the age of 16 must be accompanied while hunting. If I take my 13-year-old son deer hunting, how close must I be to him?

#### Answer

The word "accompany" means to go with or attend as a companion. The person who accompanies the minor must be near enough to control the actions of the minor. This would mean that he would have to be right with the minor.

usually hold. Use your own judgement. I'm far more inclined to trust the dog, who is in the middle of the situation, than my feeble senses.

If a dog goes birdy and is about to throw a point when the bird flushes, I shoot. Most pointing dog trainers would disagree. They claim you'll teach a dog that holding points isn't part of his job description. However, most pointing dog trainers come from quail country and they're used to birds that hold for points. Quail and pheasants, or grouse, are very different birds. If Pup is racing down corn rows and deliberately busting birds, it's time for the two of you to have a serious discussion. However, make sure bumped points are deliberate, not unintentioned, before disciplining.

#### Final Test

Finally, as Pup is trained and worked into bird season, the training should build to a climax. Hunting wild birds is the final test. Here's how I set up a training program for a pointing dog that's three or more months old in June.

June: Nothing serious—patience,



**IF YOU follow a plan, the end result should be a reasonably content hunting partner. You'll use next year to refine the basics and add some real class to Pup.**

firmness, and gentleness are the key words. Emphasis on yard training (whoa, come, heel, sit, stay) and discipline. A few introductions, if they haven't already been introduced, won't hurt either—a bird wing on a fly rod and gunfire (work up from rattling and banging pots and pans around the feeding area while he's eating to 22 blanks, to 410, to 20 gauge, to 12 gauge, over birds, for gunfire.

July: Nothing too serious again; essentially same as June. Place more emphasis on whoa/come.

August: Begin live bird training with pigeons or pen-raised quail; no shooting at first (tie 30 feet of monofilament to the bird's leg and on weight). Build up shooting over Pup's points. Also, daily obedience—whoa, come, heel, sit, stay. Also, with the live birds, set up a few retriever-style exercises so Pup knows what to do for doves in September. Nothing too serious, just an introduction.

September: Hunt doves as much as possible, work on retrieving, and, if possible, schedule a weekly live bird pointing workout so Pup doesn't think he's a Lab.

October: Grouse/woodcock hunting in season. Daily obedience workout. Schedule long weekend hunts for grouse/woodcock.

November: Depending upon your area, long, frequent grouse or pheasant hunts (whatever is more plentiful) and daily obedience workout.

December: Daily obedience workout. Ease off the constant running (both of you need a little rest), but run two times a week to keep in decent shape. Also, if possible, take advantage of winter grouse and/or crow season.

January: Daily obedience, late grouse.

February/March: Try to schedule a trip to a shooting preserve, if only for a day. It's a great way to keep Pup sharp.

### End Result

If you follow a plan (at least make one up), the end result should be a reasonably well behaved and content hunting partner. That's not a guarantee with gun dogs; nobody can give you one. You'll use the next year to refine the basics and add some real class to Pup.

This bird season, when Pup's indiscretions prompt you to wonder why you ever parted with so much money to get the mutt, remember that come January your opinion could change. All those trials and tribulations are part of the game, a part of the learning process that will, in time and with diligence, pay off.

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# THE GOLDEN AGE OF SUSQUEHANNA DECOYS

**F**OR HUNDREDS of years, hunters have flocked to the Susquehanna in search of wildfowl. Even before the first white man hunted along this river, American Indians had devised ingenious methods to lure wild ducks and geese.

The Susquehannock tribe lived in awe of nature's wonders, observing seasonal variations and the moons of migration. They summoned the Great Power to protect geese in flight, and, when flocks arrived each year, used primitive decoys to entice them into arrow range.

Indians created artificial lures by stuffing bird skins and decorating them with feathers and actual bird heads. Hunters hid in branch and leaf huts upon the water while the stuffed skins floated on planks nearby.

Susquehannocks carved rough imitations of Canada geese out of plentiful pine and oak. Hunting experts highlighted wooden birds with earthen paints, and, sliding stealthily along in hollowed-log canoes, arranged lures in strategic relation to wind and shore.

The Indian rhythm with nature was disrupted when the first white settlers entered the Susquehanna Valley in the 17th century. Toward the end of that era, Swedish and Dutch trappers built cabins along the river, following its course in search of their prey.

White men were attracted to abundant natural resources throughout the region. "Lumber for homes and boats, iron ore for tools and rifles, and fish and waterfowl for the table," were but a few of the region's rich resources described by Harold R. Buckwalter in *Susquehanna River Decoys*.

Before long, the Susquehanna Valley was heavily populated with white



**WATERFOWL WERE** recognized, early on, as one of the natural resources of the Susquehanna region, and hunters perfected the tools needed to take them—including the decoys that got results here.

hunters seeking ducks, geese, and other game for survival. Although hunting techniques varied throughout the Atlantic flyway, most waterfowlers relied upon decoys and dogs.

In some cases, a group of hunters anchored their decoys, then hid in skiffs surrounded by reeds a few yards away. Other duck hunters arranged numerous decoys on frames attached to their reed-covered skiff. The whole set

**By Marie G. Bongiovanni**

drifted down the river simultaneously. White men in search of geese frequently set their lures in water, then hid in a sink-box to await the big birds.

Then, as now, retrievers were important in hunting, and men were frequently judged by the skills of their dogs.

Most hunters made their own working decoys, and these relics are sometimes discovered in old boathouses or other out-of-the-way locations.

Decoy making flourished in the mid-to late-1800s, and diverse shapes, sizes, and designs dotted the Susquehanna.

Floating decoys, created to entice ducks and geese, were held in place with anchor lines. Stick-ups or silhouettes were positioned on land to attract shorebirds and geese.

Overall, decoys for at least thirty different species have been discovered, and regional variations provide clues regarding their origins.

Harold R. Buckwalter has been hunting Susquehanna River floaters and stick-ups for approximately fifteen years. One of his trips led him to the home of the late Jacob M. Mowery, the notable taxidermist, collector, and carver.

"When I went to visit Jake, he said, 'I have a thousand decoys in my basement, and I don't want to sell any.' He brought up six, and I bought them," Buckwalter told me with a laugh.

"His entire collection was sold at auction, and some of his lures are on display at Middle Creek. For all the decoys he had, he really made very few himself."

### Pastime Became Passion

What started out as a leisure pastime for Buckwalter became a passion. Now, the softspoken collector and carver owns and operates the Susquehanna Decoy Shop in Intercourse, Pennsylvania.

Fascinated with the ingenuity of early Pennsylvania waterfowlers, Buckwalter does extensive research and study on their creations. Though many were shot over countless times, they are

still in marvelous condition, he explained.

Buckwalter usually carves detailed decorative ducks out of basswood, but explained that early working decoys were often made of pine. Hunters fashioned 'coys out of remnants of dismantled barns, bridges, houses, and hotels.

"A dam once existed at Columbia to raise the water level so the ferries could cross at that point. When it was demolished, some of its pine was turned into decoys," Buckwalter stated.

Cedar was occasionally used for decoys. It wasn't unusual for portions of discarded cedar utility poles to be used for this purpose. According to Buckwalter, at least one man near Peach Bottom used hemlock, and cork was a popular material.

Despite their diversity, Buckwalter suggests some features that distinguish Susquehanna River decoys.

Generally, these decoys are larger than life size and often quite heavy. Flocks heading downstream often flew high because of mountains and hills along the shore, so the large size made them more visible.

Susquehanna decoys were relatively heavy so they could handle swift and turbulent currents. "Before the dams were constructed, hunting areas were shallow and filled with grass, rocks, and islands," Buckwalter stated.

When the Holtwood, Safe Harbor, and Conowingo dams were built, they formed lakes that became hunting areas. Decoys for the lakes were made even larger and heavier than the previous versions.

"The V-bottom decoys are pretty much characteristic of the Susquehanna," he said. "The fellows who made them said they worked better, given depth and current. Supposedly, round bottoms like those used on the bay bobbed around too much on the river."

Hunters frequently placed name tags on the bottoms of their decoys. "A smart hunter always put some identification on his stool, or block, as decoys were also called. Usually a tag of cop-





**OLD PINE** "stick-ups" from York Haven were intended to lure in Canadas; below, antique decoy which once belonged to the late Jacob Mowery and is now considered folk art.



**WOODEN GOOSE**, above, is one of scores of decoys at Middle Creek Visitors Center; Harvey Abel, Columbia, did the resting canvas-back, below.



**DECOYS** retain spirit of Susquehanna hunters and ingenuity of many artists.



**HAROLD BUCKWALTER**, below, decoy collector and carver, with Ginger and a prized selection of Susquehanna River decoys.



per or aluminum was used, because neither would rust. Others cut their initials into the wood itself, or simply painted names and addresses on the bottom," Buckwalter stated.

If a decoy floated downstream or was lost, finders were expected to contact the owner. In some cases, hunters who found stray decoys added the lures to their own spreads.

"Susquehanna decoys probably changed hands many times," he explained. "As evidence of change of ownership, really old and well used decoys will have many nail holes on the bottom from changing name tags."

Species served as the basis for decoy patterns, and the dedicated hunter was continually modifying the pattern, attempting to create the perfect decoy.

Hunters often traded or borrowed patterns, and designs were passed down through families. Variations in decoys appeared when new owners made modifications.

The rigging—attachment of the anchor line and weight—was the final touch in construction of decoys. Weights were usually made with pieces of scrap metal such as old bolts, horseshoes, or tools. The weight's size and placement on the underside of the decoy were careful considerations in design.

Proper positioning of the spread was an essential element in hunting strategy. "Spreads owned individually or by

several hunters could contain two or three hundred decoys," Buckwalter told me. "Many had anchor straps at both front and rear, enabling them to float frontward or backward and present a more realistic appearance to approaching waterfowl."

Other decoys, tied together with rope, used only one anchor. Often they were positioned approximately four feet from each other, through use of a spreader or piece of heavy wire with one anchor. Heavy anchors were designed to combat rough swift currents.

As our country grew, the demand for wildfowl for the table increased. This enhanced the profitability of market hunting. In the late 19th century, it was not unheard of for two men to bag up to 600 birds in one day.

In Joel Barber's classic *Wild Fowl Decoys*, he refers to canvasback shooting on the flats: "Each battery employed hundreds of stool ducks. To reproduce the impression of the great rafts of canvasbacks which assemble on the flats, each rig required from 250 to 500 units. It was not unusual for one professional to have a thousand decoys in his equipment, all made locally and by hand. The mere handling of them on the bay was a highly specialized feature of the business."

To meet the increased usage of decoys, companies began to manufacture inexpensive ones. Successful manufacturers included the Mason Decoy Fac-

**COLLECTORS SOMETIMES FORGET that decoys came into existence due to waterfowlers' needs, but hunters remember.**





tory and Dodge Decoy Factory in Detroit, Michigan, and the C.W. Stevens Factory at Weedsport, New York. Their wooden lures were used throughout the country and sold at that time for approximately 50 cents each.

"Certain of the market hunters gained reputations that were almost legendary," Buckwalter said. "Such a man was Hardy Disney of West Fairview. Each spring and fall he moved with his wife to a small cabin on an island at Goldsboro. The ducks and geese he shot were sold to Russ's Fish Market in Harrisburg."

### Lived Off the River

Another recognized market hunter was Noah Keesey, an excellent decoy and boat craftsman from Columbia. He lived off the river for most of his 91 years. Keesey spent his summers netting shad and trapping eels, and in the spring and fall he shot ducks and geese, all for the Columbia and Lancaster markets.

According to Buckwalter, others who hunted for the markets included Skeet Young and Earl Ortman from Washington Borough and Billy Gladfelter of Wrightsville. "While most used decoys, some utilized sinkboxes, punt guns, and any other method they could devise to kill waterfowl."

As the waterfowl population declined in the early 20th century, conservation forces increased throughout the nation. The Federal Migratory Bird Law in 1913 restricted spring shooting, night shooting, and bird shipments, and market gunning was finally outlawed on July 3, 1918, through passage of the Migratory Bird Treaty Act. This law regulated the sale of game and protected wildfowl over the entire range of their North American migratory flight.

The 1918 act led to the evolution of duck hunting as the sport it is today, and hunters continue to retain their awareness of the need for conservation.

Since 1979, the Susquehanna River Waterfowlers Association (SRWA) has furthered hunting and conservation interests, providing input to the Penn-

sylvania Game Commission on the current waterfowl situation.

Ty Turner, New Columbia, told me, "We formed the group because sale of duck stamps indicated that a substantial amount of waterfowling is done in this part of the state. The group helps to propagate waterfowl around the river; we're also involved in other [conservation] projects throughout the state."

Turner is one of many decoy collectors and makers in SRWA. "I make working decoys out of cork the same way they did 100 years ago," he said. "Cork decoys were used up and down the river and all over the East."

In addition to collectors and carvers, SRWA boasts a significant percentage of sportsmen who rely on the time-tested tradition of Susquehanna River decoys to bring birds out of the sky.

### Suggested Reading

The following books were selected from a wide variety of decoy publications that include collecting hints, carving techniques, famous makers, regional characteristics, and a wealth of other waterfowl information.

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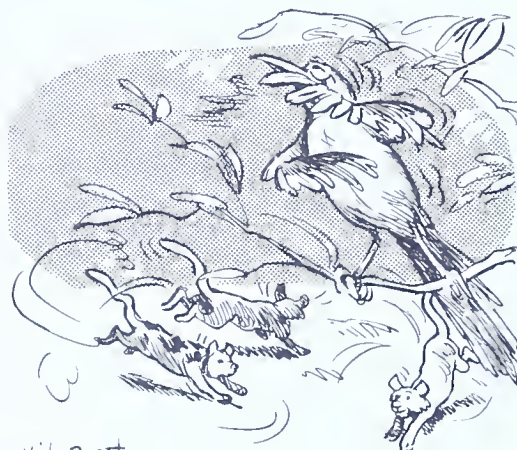


# FIELD NOTES



## Considerate

Deputy Wally Hillard was just finishing a midnight shift this spring when he saw a flock of geese flying north toward his house. At the same time he heard the "Life-Flight" helicopter taking off and heading south from the Butler Hospital. The geese dipped just low enough for the chopper to pass over them. — LMO Jay D. Swigart, Butler



Nick Rosato

## Fooled The Experts

On one of the first nice days of March I was in my office, working with the door open and enjoying the sounds of birds outside, when I was startled by the screams of an injured rabbit. I rushed outside and was immediately joined by several neighborhood cats which had also come to investigate. We searched, but found no rabbit. About an hour later I heard the sound again. This time, I and the cats found the squealer. It was a mockingbird, perched in a clump of birchs and apparently enjoying the attention our group accorded his new song. — LMO William J. Lockett, Perkasio.

## A Rare Bird

*PERRY COUNTY*—DGP Leroy L. Everett and I arrived a few minutes early at the Greenwood Elementary School for a hunter education course, and found some reports that had been written by the students. One report caught my eye. It was written by Mike Cramer and was about a rare "Gee-Gee" bird that had landed in Harrisburg. I didn't know what a Gee-Gee bird was and neither did Leroy, so we checked with the teacher, Mrs. Watkins. She informed us that the reports were an assignment in which the students had to make up a news story. We both felt better, knowing a rare bird hadn't really slipped into the state without the Game Commission's knowledge. — DGP James L. Brown, Loysville.

## And Three Traffic Lights

*JUNIATA COUNTY*—I have been in this district only a short time, but have learned many interesting facts. This county is one huge valley bordered on the north by Shade Mountain and on the south by the Tuscarora. It's 65 miles long and consists of about 385 square miles. It has two major rivers, the Juniata and the Susquehanna. Approximately 19,000 people live here, only 3000 more than a hundred years ago. As then, farming is still the main occupation and many of the farms still belong to the same families. Family farms such as these were important in making this country what it is today. If you should have the privilege of traveling through this beautiful county, you'll be looking at a very important piece of our American heritage. I am proud to be a small part of it. — DGP Daniel T. Clark.



## Could Have Been Worse

**SOMERSET COUNTY**—Harold Bittner, Berlin, made a scary discovery in late March. He was walking near a beaver dam when he noticed some dead animals near a powerline that had fallen into the water. He immediately notified the power company. For some reason, nobody was connected to the line, so it had lain hot and unnoticed for quite awhile. The power company quickly remedied the problem and put a customer on the line so nothing like that could happen again. After repairs were made, a census showed 7 beaver, 13 muskrats, and 2 mink fell victim to the hot line. —DGP Daniel W. Jenkins, Somerset.

## Keep on Truckin'

**BLAIR COUNTY**—Game protectors conduct a woodcock survey each spring, counting the number of singing birds heard along a designated route. I chose one such place for a route because it had an ideal habitat. Unfortunately, the route was so close to Route 220 that the singing birds were drowned out by the roar of 18-wheelers. This was so bad that I eventually had to relocate my route. In the meantime I became extremely proficient at identifying the mating call of Mack trucks. —DGP Stephen A. Kleiner, Altoona.

## Some Things Don't Pay

**WARREN COUNTY**—A recent hearing involving a man who shot a bear over bait provides a good example of the court's and society's attitudes toward this type of violator. After a lengthy hearing, the defendant was found guilty and fined \$400 plus court costs. He also was ordered to pay \$200 in restitution because he had disposed of the head and hide. In addition, the violator may lose his hunting privileges for up to three years. —DPG Barry Zaffuto, Tidioute.



## Made It Through

**LUZERNE COUNTY**—Several persons thanked me for stocking pheasants this spring. I appreciated their kind thoughts, but the truth is that we had not stocked any pheasants since the fall of 1985. The birds people were seeing are carryovers. —DGP Robert W. Nolf, Conyngham.

## Honesty

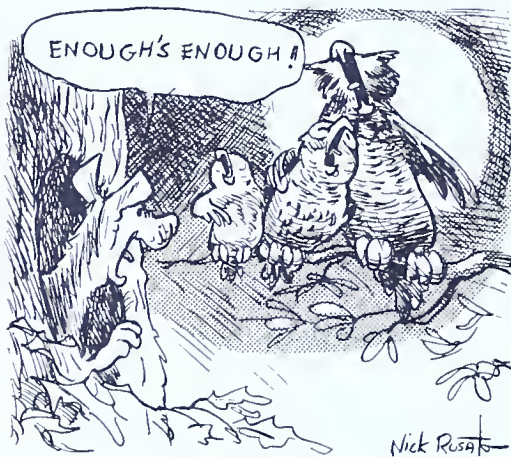
**ELK COUNTY**—As a new officer I've met a lot of new people in a short time, and I have to admit it's not easy keeping track of everyone. So, if I don't speak to you on sight, or seem reluctant to introduce you to a fellow officer, please don't be offended. I'm probably just not sure which name to put with which face yet. Just keep refreshing my memory and eventually I'll remember. —DGP Dick Bodenhorn, Ridgeway.

## Well Qualified

**CLARION COUNTY**—While manning an exhibit at the Clarion Mall during National Wildlife Week, many persons came up and asked who the new game protector was and when he would be taking over the district. Many seemed surprised when I told them I was "it". I guess my gray hair doesn't make me look like a rookie. —DGP Jim Egley, Knox.

## Wild Inhabitants

**WAYNE COUNTY**—The northeast region is an interesting paradox. Despite the area's development and high human population, it is home for several animals that have essentially disappeared from the rest of the commonwealth. We have river otters, frequent sightings of ospreys and bald eagles, and, this past spring, I received two reports of what might be pine martens.—DGP Donald R. Schauer, Honesdale.



## Three-part Harmony

**MCKEAN COUNTY**—During late winter and early spring I could hear great horned owls, barred owls and a saw-whet owl all hooting on the mountain behind my house.—DGP John Dzemyan, Smethport.

## Goin' East

I was promoted recently to the Wildlife Environmental Impact Coordinator position in Harrisburg. I would like to take this opportunity, on behalf of myself and my family, to thank everyone who befriended us during our seven years here. We will miss you all, but remember—our door will always be open and the coffee is always on. Thanks again.—LMO Denver A. McDowell, Carrolltown.

## The Big Picture

**LAWRENCE COUNTY**—One of the basic problems associated with deer management became evident at a seminar I attended. It was conducted by I&E Supervisor Bob MacWilliams for the Laurel High School Outdoors Club. One of the members felt the deer herd was being overhunted, while another felt there were too many deer and that hunters should be allowed to take more than one a year. Each of these gentlemen had legitimate points, but only because they were basing their opinions on what was happening in the limited areas they were familiar with, not on county and state levels.—DGP Gene W. Beaumont, New Castle.

## And Wildlife

**WESTMORELAND COUNTY**—With the graduation of new game protectors and the transferring of many veteran officers, many sportsmen will be dealing with new Commission personnel. These factors, coupled with the hourly restrictions put on all of us, make public cooperation and patience important. Give these new officers time to get established. In that way, we all will benefit.—DGP R. D. Hixson, Ligonier.

## Not Just Game

**MERCER COUNTY**—The state's largest heron rookery was threatened when the trees in it were scheduled for cutting, right at the beginning of the nesting season. Thanks to the efforts of local sportsmen, the U.S. Fish and Wildlife Service and the Game Commission, logging was delayed, giving the birds at least a one-year reprieve and, if the county's Federation of Sportsmen's Clubs is successful, maybe a permanent one. This is a fine example of organized sportsmen working to save wildlife, not just game.—DGP Jim Donatelli, Mercer.





### Well Fed

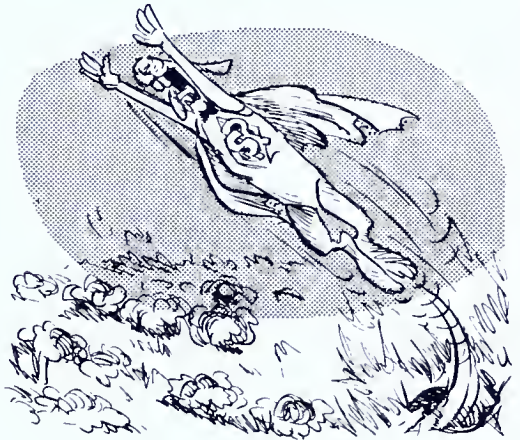
**MONTGOMERY COUNTY**—A woman phoned Deputy Ed Glover in March about a young groundhog wandering around. Knowing that was no time to find a young groundhog, Ed wasn't surprised to learn the animal was a full grown muskrat. But he was surprised to find it seated in front of a food tray the woman had provided. The banquet included a peanut butter and jelly sandwich, two carrots, a wedge of cabbage, and assorted broccoli and cauliflower. Ed thanked the woman for her concern and transferred the muskrat to a nearby marsh, for more traditional dining. —DGP D. M. Killough, Perkiomenville.

### Next Door

**INDIANA COUNTY**—I had just dropped off my sixth roadkilled deer in two days—four were hit on the same day on just a three-mile stretch of road. I then received a roll of wire for a farmer to fence his corncrib because deer were eating every kernel within reach. Next, I had to contact a woman who couldn't get grapevines started because of a certain nameless animal. Later that night I saw 18 deer in one field and 21 in another. So why is it that the question I'm most frequently asked is, "Why aren't there any deer around anymore?" —DGP Art Hamley, Marion Center.

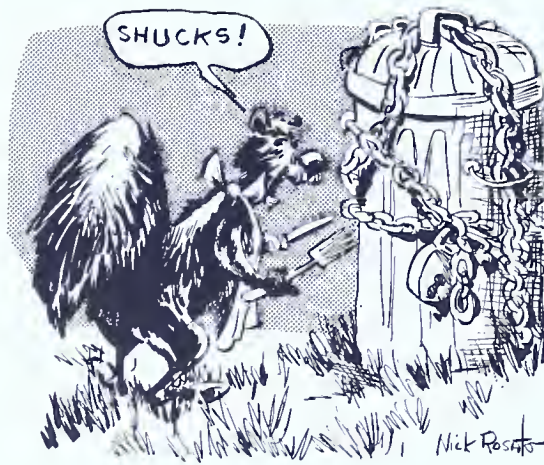
### Struck

**JEFFERSON COUNTY**—Three deputies—who shall remain anonymous—went to an abandoned mine in early spring because we had heard a bear was trapped inside when the roof caved in. The deputies reported back that the bear was almost out but that she was growling and really upset. Also, holding their fingers apart, they indicated there was 12 inches between the bear's eyes. The next day, DGP Don Chaybin and I went to the scene with one of the deputies. When we got within 50 feet of the entrance, the deputy said he was not going any closer to that bear. Don and I cautiously approached the entrance and peeked through an 18-inch tunnel. We found the blackest porcupine I've ever heard of. And, out of respect for the deputies, I admit it also was one of the biggest. —DGP Don Garner, Punxsutawney.



### Here All The Time

**CLEARFIELD COUNTY**—Judging from all the complaints I've received about rabbits in gardens, and based on the number I've seen along the roads, it appears our cottontails have made their annual trip from outer space, from underground, or from wherever else people think they go. —DGP Don Zimmerman, Drifting.



### Common Sense

**CLARION COUNTY**—Even though skunks are around all year, they are especially noticeable in the spring, during their breeding season, and later in the summer when the young disperse. People can easily solve many of their skunk problems by closing in porches with screen or wire, checking foundations for loose stones or bricks, and by making sure there is no food available to keep the animals coming around. —DGP Gordon J. Couillard, Clarion.

### Thoughtless

**SOMERSET COUNTY**—Deputy Sam Donia and I recently investigated a littering case on private land open to public hunting. We discovered that at least one of those responsible had weekly garbage pickup at his residence. Yet he thought nothing of tossing trash on another's property. We consider littering a serious violation and sportsmen should, too. Farmers annually lose millions of dollars worth of equipment and livestock because of such thoughtless actions. This fall, while you're afield, take a little time to clean up some of the debris you see. The farmers will certainly appreciate it, and the effort may pay big dividends for all of us. —DGP Cliff Guindon, Jr., Stoystown.

### Here's Lookin' At You

**BEDFORD COUNTY**—Deputy Bob Law and I were staking out a spot where there's a severe littering problem. I had a good idea when this violation was occurring, so I wasn't surprised when, about 9 p.m., a car pulled into the parking area right on schedule. Bob and I kept this vehicle under observation for a long time but nothing happened. We finally concluded that if the occupants were going to throw anything out, they would already have done so. As we were leaving, the radio cracked with, "You guys are leaving too early." It turned out the vehicle we had under observation was Deputy Doug Miller's, who also was trying to curb the littering problem. —DGP R. J. Trombetta, Woodbury.

### Naturally

**PHILADELPHIA COUNTY**—It's unfortunate how accustomed city dwellers have become to graffiti. A gentleman recently told me how sad he was that vandals had spray painted a duck on the Pennypack Creek. A check showed he had seen a male wood duck, decked out in only its natural attire. —DGP Richard J. Shire, Philadelphia.

### Two on the Rise

**POTTER COUNTY**—Bobcat and otter sightings used to be rare but the number of reports I've received over this past year indicate both species are on the increase here. —DGP Ron Clouser, Galeton.

### Vanity?

**NORTHAMPTON COUNTY**—While compiling information for my March monthly report, I found I had participated in 12 meetings attended by over 1600 people. Maybe it's just vanity, but I feel flattered that so many people are interested in the work of the Pennsylvania Game Commission. —DGP R.W. Anderson, Nazareth.



# Seasons and Bag Limits

**R**ESPONDING to overwhelming comment in opposition to an earlier proposal, the Game Commission declined to approve sunrise to sunset shooting hours. As a result of that decision, the legal starting time remains one-half hour before sunrise — as it has been for the past 19 years.

The Commission decided to reject the proposal, advanced during the March meeting, citing hundreds of letters and comments from individual hunters and sportsmen's clubs who opposed the later starting time. In reviewing the March proposal, the Commission also noted that hunting accident statistics do not support the later starting time, inasmuch as few accidents occur during the early morning hours.

In other action taken during the June meeting, the Commission approved proposed rule making that would require the use of nontoxic shot for all Pennsylvania waterfowl hunting effective September 1, 1988; adopted new regulations creating two separate furbearer and predator harvest zones; approved three-day bear and three-day antlerless deer seasons; increased bag limits on Canada geese in several north-western counties; enlarged the Special Regulations Area in southeastern Pennsylvania; approved six options to purchase 631 acres of new State Game Lands in Butler, Venango, McKean and Indiana counties; and raised the man-



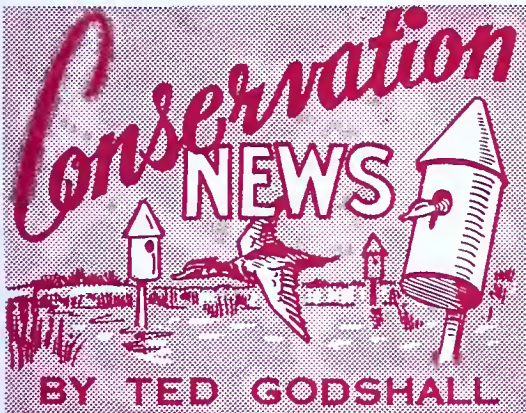
**BEAUTIFUL** pair of 8-pointers taken in Bucks County by David Vetter, left, and Wayne Vetter of Morrisville. Dave's field-dressed at 185 lbs., Wayne's at 165.

datory retirement age of deputy game protectors from 65 to 70.

In adopting new regulations creating separate north and south furbearer and predator harvest zones, the Commission has responded to frequent and numerous requests from upstate hunters and trappers where pelts "prime-up" earlier in the season. For purposes of hunting and trapping, the north and south zones are divided by the center of the east-bound lanes of Interstate Route 80.

Again this year, 100,000 bear licenses will be available. Bear are now legal in all 67 counties — huntable Monday, November 24 through Wednesday November 26. The season has been expanded to three days in anticipation of a large harvest to reduce damage and nuisance complaints, and to stabilize the population.

This fall, waterfowl hunters will be eligible to take three geese daily in Butler, Erie and Mercer counties, up from two in past years. The daily limit in



Crawford County has been increased from one to two, except on the controlled hunting area at the Pymatuning Wildlife Management Area.

In a further effort to achieve and maintain deer management goals in each of the state's 66 county management units, the Commission has authorized an allocation of 565,500 licenses and expanded the 1986 antlerless season to three consecutive days—Monday, December 15 through Wednesday, December 17. Persons holding valid antlerless licenses for counties in the Special Management Areas may hunt antlerless deer from December 1 through January 3, 1987. (Responding to ever increasing population densities in southeastern Pennsylvania, the Commission has expanded the northern and western

boundaries of the Special Regulations area which now includes all of Philadelphia and Delaware counties, and a majority of Bucks, Chester and Montgomery counties, where types of sporting arms and ammunition are restricted.)

The two-week statewide buck season begins December 1 and ends December 13. Archery season begins October 4 and ends October 31. Early squirrel and grouse season starts October 18 and ends November 29. Regular small game season begins November 1 and ends November 29. Fall turkeys are huntable in eight of the nine management areas, with seasons varying from one to three weeks. The special flintlock deer hunt is scheduled December 26 through January 3, 1987.

## Seasons and Bag Limits 1986–1987

The Pennsylvania Game Commission, in Harrisburg on June 4, 1986, established the following seasons and bag limits for resident game and furbearers for the 1986–87 hunting license year which begins September 1.

Open seasons include first and last dates listed, Sundays excepted, for game. The opening hour for small game, migratory game birds and other wild birds or animals (except waterfowl in the Lake Erie Zone) on November 1 will be 9 a.m. Shooting hours for other days and seasons will be from one-half hour before sunrise until sunset except turkey gobblers (spring season) from one-half hour before sunrise until 11 a.m.; raccoons, which may be hunted any hour except during the firearms deer seasons when the hours are from sunset to one-half hour before sunrise; and woodchucks, coyotes, opossums, skunks, and weasels, which may not be hunted before noon April 25–May 23. Seasons and shooting hours for migratory birds will be announced later.

Daily Limit	Field Possession Limit		DATES OF OPEN SEASONS	
			First Day	Last Day
6	12	Squirrels, Gray, Black, Red and Fox (Combined)#	Oct. 18	Nov. 29 AND
			Dec. 26	Jan. 10, 1987
2	4	Ruffed Grouse (Statewide)#	Oct. 18	Nov. 29 AND
		(Statewide)#	Dec. 26	Jan. 3, 1987
4	8	(In 55 counties)#*	Jan. 5	Jan. 24, 1987
		Rabbits, Cottontail #	Nov. 1	Nov. 29 AND
2	4	Ring-necked Pheasants, males only (Except in designated area)**	Dec. 26	Jan. 10, 1987
			Nov. 1	Nov. 29
4	8	Bobwhite Quail (In 54 counties)#***	Nov. 1	Nov. 29
		Raccoons (Hunting—Pa. residents—North Zone)#****	Nov. 3	Jan. 24, 1987
Unlimited		(Hunting—Pa. residents—South Zone)#****	Nov. 12	Jan. 24, 1987
		(Hunting—nonresidents of Pa.—North Zone)#****	Dec. 3	Jan. 24, 1987
		(Hunting—nonresidents of Pa.—South Zone)#****	Dec. 12	Jan. 24, 1987



1	1	Wild Turkey — Management Area No. 1 +	Closed to Fall hunting except open Crawford County Nov. 1 . . . . . Nov. 8
		— Management Area No. 2 +	Nov. 1 . . . . . Nov. 8
		— Management Areas No. 3, 4 & 5.	Nov. 1 . . . . . Nov. 22
		— Management Areas No. 6, 7 & 8 +	Nov. 1 . . . . . Nov. 15
		— Management Area No. 9 +	Closed to Fall hunting
1	1	— Spring Gobbler Season . . . . .	April 25 . . . . . May 23, 1987
		(Bearded Birds Only, Statewide)	
2	4	Hares (Snowshoe Rabbits) or Varying Hares. . . . .	Dec. 26 . . . . . Jan. 3, 1987
Unlimited		Woodchucks (Groundhogs)# — No Sunday Hunting. . . . .	Sept. 1 . . . . . Aug. 31, 1987

#### BIG GAME

1	1	Bear — by individual — Statewide . . . . .	Nov. 24 . . . . . Nov. 26
3	3	Bears, by hunting party of 3 or more — Statewide . . . . .	Nov. 24 . . . . . Nov. 26
		(Deer, Archery Season, any deer — Statewide . . . . .	Oct. 4 . . . . . Oct. 31 AND
		( . . . . .	Dec. 26 . . . . . Jan. 3, 1987
		(Deer, Antlered, with 2 or more points to an antler . . . . .	Dec. 1 . . . . . Dec. 13
		( . . . . . or a spike 3 or more inches long — Statewide	
1	1	(Deer, Antlerless, with required antlerless license . . . . .	Dec. 1 . . . . . Jan. 3, 1987
		( . . . . . Special Regulations Areas listed below + +	
		(Deer, Antlerless — Statewide . . . . .	Dec. 15 . . . . . Dec. 17
		(Deer, Flintlock Season, any deer — Statewide . . . . .	Dec. 26 . . . . . Jan. 3, 1987

#### FURBEARERS AND PREDATORS — HUNTING

Unlimited		Foxes — Red and Gray — North Zone#**** . . . . .	Nov. 3 . . . . . Feb. 28, 1987
		Foxes — Red and Gray — South Zone#**** . . . . .	Nov. 12 . . . . . Feb. 28, 1987
Unlimited		Skunks, Opossums, Weasels, Coyotes# . . . . .	Sept. 1 . . . . . Aug. 31, 1987

#### NON-GAME BIRDS

Unlimited		Crows (Hunting on Fridays, Saturdays, Sundays Only) . . . . .	Sept. 5 . . . . . Nov. 23
			Dec. 26 . . . . . Apr. 12, 1987
			May 29 . . . . . Aug. 23, 1987

#### TRAPPING

Unlimited		Skunks, Opossums, Foxes, Weasels, Coyotes (Traps) . . . . .	Nov. 3 . . . . . Jan. 24, 1987
		— North Zone#**** . . . . .	
		Skunks, Opossums, Foxes, Weasels, Coyotes (Traps) . . . . .	Nov. 12 . . . . . Jan. 24, 1987
		— South Zone#**** . . . . .	
Unlimited		Raccoons (Traps — Pa. residents) — North Zone#**** . . . . .	Nov. 3 . . . . . Jan. 24, 1987
		Raccoons (Traps — Pa. residents) — South Zone#**** . . . . .	Nov. 12 . . . . . Jan. 24, 1987
Unlimited		Raccoons (Traps — nonresidents of Pa.) — North Zone#**** . . . . .	Dec. 3 . . . . . Jan. 24, 1987
Unlimited		Raccoons (Traps — nonresidents of Pa.) — South Zone#**** . . . . .	Dec. 12 . . . . . Jan. 24, 1987
Unlimited		Minks# . . . . .	Nov. 27 . . . . . Dec. 24
Unlimited		Muskrats (Traps only) . . . . .	Nov. 27 . . . . . Dec. 24
6	6	Beavers (Traps only — In 66 counties). . . . .	Dec. 26 . . . . . Mar. 14, 1987
12	12	Beavers (Traps only — Wayne County) . . . . .	Dec. 26 . . . . . Mar. 14, 1987

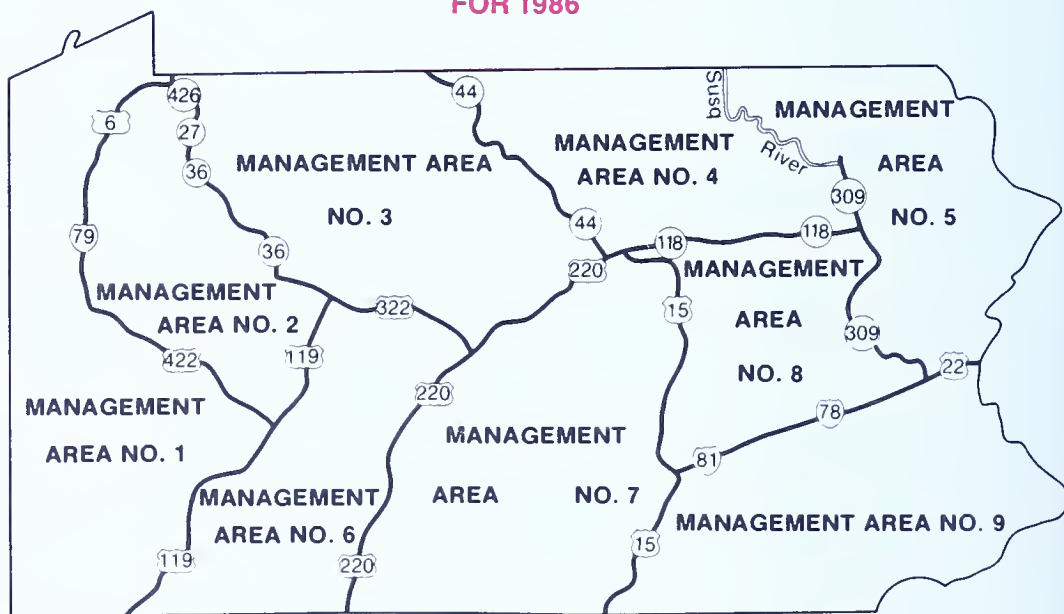
NO OPEN SEASON — Elk, Otters, Pine Martens, Fishers, Hungarian Partridges, Sharp-tailed Grouse, Bobcat or Wildcat.

NO CLOSE SEASON — Chukar Partridges (Except during general firearms seasons for deer).

FALCONRY SEASON — Details of this season will be disseminated to licensed falconers.

- # During the regular antlered and antlerless deer seasons Dec. 1–13 and Dec. 15–17, it shall be unlawful to hunt or kill any other wild bird or animal from one-half hour before sunrise to sunset — migratory waterfowl and game birds on regulated shooting grounds are excepted; hunting during spring turkey season April 25–May 23 for coyotes, opossums, skunks, weasels, groundhogs prohibited before 12 noon.
- \* Grouse hunting permitted Jan. 5–24 in all counties except Berks, Bedford, Butler, Centre, Clarion, Dauphin, Fayette, Huntingdon, Indiana, McKean, Monroe and Susquehanna where the season is closed.
- \*\* *Designated Area for Male and Female Pheasants* — East of Interstate Route 79 from the city of Erie to Interstate Route 80, north of Interstate Route 80 from Interstate Route 79 to Route 220, north of Route 220 from Interstate Route 80 to Route 118, north of Routes 118 and 415 from Route 220 to Route 309, north and east of Route 309 from Route 118 to Interstate Route 80, and north of Interstate Route 80 from Route 309 to the New Jersey line.
- \*\*\* Bobwhite quail hunting permitted Nov. 1–29 in all counties except Adams, Chester, Cumberland, Dauphin, Delaware, Franklin, Fulton, Juniata, Lancaster, Lebanon, Perry, Snyder and York, where the season is closed.
- \*\*\*\* The dividing line for the North and South Zones will be the center of the eastbound lane of Interstate Route 80.
- + Turkey Management Area 1 — Bounded on the north by Lake Erie; on the east and north by the New York State line, by Route 426 from the New York State line to Route 6, by 6 from 426 to I-79, by I-79 from 6 to Route 422, by 422 from I-79 to Route 119, and by 119 from 422 to the West Virginia State line; on the south by the West Virginia State line; on the west by the West Virginia and Ohio State lines.

**PENNSYLVANIA  
TURKEY MANAGEMENT AREAS  
FOR 1986**



- + Turkey Management Area 2 — Bounded on the east by Route 426 from Route 6 to Route 27, by 27 from 426 to Route 36, by 36 from 27 to Route 322, by 322 from 36 to Route 119, and by 119 from 322 to Route 422; on the south by 422 from 119 to I-79; on the west by I-79 from 422 to Route 6, and by 6 from I-79 to 426.



- + Turkey Management Area 3 — Bounded on the north by the New York State line; on the east by Route 44 from the New York State line to Route 220, and 220 from 44 to Route 322; on the south by 322 from 220 to Route 36; on the west by 36 from 322 to Route 27, by 27 from 36 to Route 426, and by 426 from 27 to the New York State line.
- + Turkey Management Area 4 — Bounded on the north by the New York State line; on the east by the Susquehanna River from the New York State line to Route 309, and by 309 from the Susquehanna River to Route 118; on the south by Route 118 from 309 to Route 220, and by 220 from 118 to Route 44; on the west by Route 44 from 220 to the New York State line.
- + Turkey Management Area 5 — Bounded on the north by the New York State line; on the east by the Delaware River; on the south by Route 22 from the Delaware River to Route 309; on the west by 309 from 22 to the Susquehanna River, and by the Susquehanna River from 309 to the New York State line.
- + Turkey Management Area 6 — Bounded on the north by Route 322 from Route 119 to Route 220; on the east by 220 from 322 to the Maryland State line; on the south by the Maryland and West Virginia State lines; on the west by 119 from the West Virginia State line to 322.
- + Turkey Management Area 7 — Bounded on the west and north by Route 220 from the Maryland State line to Route 15; on the east by 15 from 220 to the Maryland State line; on the south by the Maryland State line.
- + Turkey Management Area 8 — Bounded on the north by Route 220 from Route 15 to Route 118, and by 118 from 220 to Route 309; on the east by 309 from 118 to Route 22; on the south by 22, I-78 and I-81 from 309 to 15; on the west by 15 from I-81 to 220.
- + Turkey Management Area 9 — Bounded on the north by I-81, I-78 and Route 22 from Route 15 to the Delaware River; on the east by the Delaware River; on the south by the Delaware and Maryland State lines; on the west by 15 from the Maryland State line to I-81.
- + + *Special Regulations Area — Southwestern Pennsylvania — Allegheny County* — Only bow and arrow, shotguns not smaller than 20 gauge with rifled slugs or punkin balls and muzzleloading long guns may be used for taking deer in Allegheny County. Manually operated .22 caliber rimfire rifles and handguns may be used for small game (except spring gobbler season), furbearers which may lawfully be hunted, crows, predators, and while trapping. *Special Regulations Area — Southeastern Pennsylvania* — Only bow and arrow, shotguns not smaller than 20 gauge with buckshot, rifled slugs or punkin balls and muzzleloading long guns may be used for taking deer in that part of southeastern Pennsylvania bounded by the following: Beginning at the Delaware River at Point Pleasant, southwest on the Point Pleasant Pike and Ferry Road to Route 413, northwest on Route 413 to Route 611, northwest on Route 611 to Route 412, north on Route 412 to Route 563, southwest on Route 563 to Route 313, northwest on Route 313 to Route 309, southwest on Route 663 from Route 309 to Route 73, west on Route 73 to Route 100, south on Route 100 to Route 30, west on Route 30 to Route 82, south on Route 82 to Route 1, west on Route 1 to Route 41, and southeast on Route 41 to the Delaware line, including Ridley Creek State Park, Delaware County, and Tyler State Park, Bucks County. Manually operated .22 caliber rimfire rifles and handguns may be used while trapping, and then only to dispatch legally-caught animals. Hunting deer with firearms is prohibited in Philadelphia County. While hunting, use or possession of single projectile ammunition at any time other than specified above is prohibited in both Special Regulations Areas.

# Three-Day Antlerless Season

**I**NCREASED SURVIVAL and productivity, coupled with lower hunter success rates, led the Game Commission to design a three-day antlerless deer season for 1986. They also made 565,500 antlerless licenses available, with the goal of producing a harvest similar to 1985's.

Last year, hunters reported taking 85,331 antlerless deer, a figure which barely enabled wildlife managers to hold down the rate of escalation experienced in the size of Pennsylvania's deer population in recent years.

The establishment of a three-day season in 1986 marks the first time since 1959 that a regular antlerless season of that length has been slated.

Game Commission records indicate that when a three-day season is scheduled, with the third day coming on a Wednesday, only about 6 percent more deer are harvested than are taken in a two-day (Monday and Tuesday) season.

Wildlife managers this year have established antlerless license allocations and season length to produce a reported harvest of at least 80,000 whitetails, a figure necessary to prevent further expansion of deer numbers in the state.

Last year's allocations and season length were designed to produce a reported harvest of 79,000 deer, but when the regularly scheduled two-day season resulted in under 70,000 being taken, the Game Commission extended the antlerless season by one day, increasing the harvest about 15 percent.

Extensive studies show less than half of the successful antlerless deer hunters report their kills. Actually, over 168,000 antlerless deer were taken last year. This year's actual harvest goal is at least 163,000.

Deer Biologists Bill Palmer and Bill Shope point out Pennsylvania has had three consecutive mild winters, which have boosted survival considerably. "An increase of only a few percent in

survival may not seem that important," they say, "but it really amounts to thousands of deer. When survival increases, there are more breeders and, consequently, more fawns added to the total, boosting the population considerably."

Increases in survival and productivity mean the state will have more than a million deer this fall. It also means more than 400,000 fawns were born in 1986, and unless that number of deer is removed (through all forms of mortality) from the population, the state's deer herd will grow.

The biologists note it took only about three antlerless licenses to harvest one deer in the early 1980's, but by 1983 and 1984, about four licenses were required to take one deer. "Larger numbers of licenses do not necessarily mean significantly larger harvests of deer," they say.

Game Management Bureau Director Dale Sheffer indicates this year's allocations are designed to hold deer herds at present levels in 36 counties and permit expansion in 9 counties. "In the remaining 21 counties, we hope to reduce population levels," he said.

Sheffer noted that deer densities are at levels well above the Game Commission's goals in many southeastern, southwestern and northcentral counties, and this was taken into account in allocating antlerless licenses.

## Be Reminded

For the third consecutive year, hunters will not be permitted to hunt in both the antlerless season and the flintlock muzzleloader season. Those wishing to participate in the muzzleloader season must purchase their stamps and surrender their antlerless deer license applications before October 6, the date when county treasurers begin accepting antlerless deer license applications.



He explained that in 1979 the agency instituted a management plan whereby the overwintering herd in each county is tailored to the carrying capacity of the forested range. Past studies show seedling-sapling stands (brush and trees under 5 inches in diameter) can comfortably overwinter about 40 deer per square mile; poletimber (trees 5 through 11 inches in diameter) supports only 10 deer per square mile; while sawtimber (trees over 11 inches in diameter) and noncommercial timber

can support 20 deer per square mile. About every ten years, the U.S. Forest Service inventories and classifies timber stands in each county, enabling the Game Commission to readily calculate the carrying capacity of each deer management unit (county). "Antlerless license allocations are designed to bring deer herds into line with the carrying capacity of the range in each county," Sheffer says. Following are the 1986 antlerless license allocations by county:

ANTLERLESS DEER LICENSE ALLOCATION FOR 1986			
<i>County</i>	<i>Licenses</i>	<i>County</i>	<i>Licenses</i>
Adams	8,300	Lackawanna	5,000
Allegheny	8,050	Lancaster	8,150
Armstrong	8,000	Lawrence	2,000
Beaver	4,250	Lebanon	5,500
Bedford	10,700	Lehigh	4,600
Berks	12,250	Luzerne	10,700
Blair	9,700	Lycoming	14,600
Bradford	15,100	McKean	14,950
Bucks	9,700	Mercer	4,450
Butler	7,150	Mifflin	6,550
Cambria	6,700	Monroe	5,500
Cameron	6,000	Montgomery	4,550
Carbon	4,000	Montour	1,000
Centre	14,950	Northampton	6,200
Chester	8,850	Northumberland	4,000
Clarion	8,250	Perry	11,000
Clearfield	13,700	Philadelphia	—
Clinton	11,000	Pike	9,750
Columbia	6,950	Potter	18,700
Crawford	5,050	Schuylkill	9,900
Cumberland	7,400	Snyder	4,400
Dauphin	7,900	Somerset	11,500
Delaware	1,650	Sullivan	5,850
Elk	10,850	Susquehanna	9,050
Erie	4,750	Tioga	16,950
Fayette	5,650	Union	3,100
Forest	10,500	Venango	10,650
Franklin	3,250	Warren	17,200
Fulton	5,150	Washington	14,900
Greene	13,100	Wayne	9,250
Huntingdon	13,200	Westmoreland	12,100
Indiana	6,350	Wyoming	5,100
Jefferson	9,950	York	11,600
Juniata	8,400	TOTAL	565,500

# Goose Blind Applications

**A**PPPLICATIONS for hunting from goose blinds at the Pennsylvania Game Commission's two controlled hunting areas at Pymatuning and Middle Creek will be accepted from September 1 through September 20.

Hunters are permitted to apply to only one of the two areas. If a person applies to both areas, that person will not be eligible to hunt on either.

A hunter will be permitted only one hunting trip to a controlled goose shooting area. If a person hunts geese on one area, that person will not be eligible to return to that facility as a hunter this year, and that person will not be eligible to hunt on the other controlled goose shooting area in 1986.

Drawings will be held by the Game Commission at Pymatuning and Middle Creek in late September to select blind holders for both controlled shooting areas.

## Three Guests

A reservation will entitle the applicant to bring not more than three guests. The guests must be present to register.

At Middle Creek, there will be four shooting days each week of the season, on Mondays, Tuesdays, Thursdays and Saturdays. Shooting at Pymatuning will also take place on four days, but on Mondays, Wednesdays, Fridays, and Saturdays.

Applications for goose blinds at Middle Creek and Pymatuning are a part of the 1986-87 Hunting Digest supplied with the hunting license. To apply, a hunter simply fills out the application and then mails it to the management area of his or her choice.

The official application form printed in the Digest must be used.

Pymatuning applications must be submitted to the Pennsylvania Game Commission, Pymatuning Wildlife Management Area, RD 1, Hartstown, PA 16131, and Middle Creek applica-

tions to the Pennsylvania Game Commission, Middle Creek Wildlife Management Area, RD 1, Newmanstown, PA 17073.

The applicant's 1986-87 hunting license number, including the letter, must be listed on the application. Applications must be received no earlier than September 1 but not later than September 20; if the application is received earlier than September 1 or later than September 20, the application will be rejected.

## Not Transferable

Only successful applicants, as determined in the drawings, will be notified. Reservations are not transferable.

The successful applicant whose name appears on the Pymatuning reservation must present the reservation in person at the Pymatuning Wildlife Management Area headquarters (registration building) located on Legislative Route 20006 between Hartstown and Linesville about four miles north of Hartstown, and Middle Creek reservations must be presented at the Middle Creek Wildlife Management Area visitors center on Hopeland Road about two miles south of Kleinfeltersville.

Hunters should arrive at least one hour before shooting time to allow for the issuance of permits. All reservations for any one day will be valid only up to one-half hour before shooting time on the specified day.

A federal migratory bird hunting stamp (duck stamp) is required to hunt geese and ducks. 1986-87 hunting licenses and duck stamps must be presented at the check station.

Only one official application per person may be submitted. Anyone submitting more than one application for a reservation will have all applications rejected. Further, individuals filing more than one application or hunting more than one time per season on a controlled goose hunting area in the state will be



denied the privilege of hunting on these areas for three years.

Provisions have been made at both Middle Creek and Pymatuning to accommodate handicapped persons.

Shooting hours for the controlled goose hunting area at Pymatuning are from one-half hour before sunrise until noon. On the Middle Creek controlled area, shooting hours are from one-half hour before sunrise until 1:30 p.m. Hunting starts at 9 a.m. at Pymatuning on November 1. There is no hunting from goose blinds at Middle Creek on November 1.

### **Fifty Hunters**

In addition to the goose hunting area, there are also two controlled duck shooting areas at Pymatuning. Fifty hunters can be accommodated at a time in each of these two areas.

Shooting days for the Pymatuning duck areas are also Mondays, Wednesdays, Fridays and Saturdays, and duck area shooting hours are the same as for the goose area. While these duck areas are controlled shooting sections, there are no advance reservations.

A drawing is held each morning to determine the 100 hunters who will qualify for that day. Those using the duck areas must check in at the registration building.

This year there will again be four duck shooting blinds at Middle Creek, with a drawing each shooting day to determine the winners of these blinds. A hunter may take a goose from a Middle Creek duck blind; however, a hunter is limited to one goose per year from the controlled shooting section at Middle Creek.

A hunter is also limited to one goose per year on the controlled goose hunting area at Pymatuning.

Ducks may be taken by hunters using the goose blinds at both Middle Creek

## *In Memoriam*

**Dorothy E. Bair**  
1911-1985

Clerk IV, Bureau of Administration  
Harrisburg Office  
Retired 1974; 28 years service

**Thomas W. Meehan, Jr.**  
1918-1985

Game Conservation Officer  
Wayne County  
Retired 1981; 35 years service

**James W. Way**  
1927-1985

Labor Foreman I  
Allegheny County  
27½ years service

**Samuel K. Weigel**  
1911-1986

Game Conservation Officer  
Adams County  
Retired 1973; 36 years service

**Lester J. Haney**  
1896-1986

Game Conservation Officer  
Jefferson County  
Retired 1959; 34½ years service

and Pymatuning, within other existing federal and state regulations for waterfowl.

Waterfowl hunters are required to use steel shot at Middle Creek and Pymatuning.

Hunters are reminded that the 1986 waterfowl seasons will not be established until late August or early September, after the federal government draws up its framework. Waterfowlers are urged to wait until Pennsylvania seasons are announced before submitting their blind applications to Pymatuning or Middle Creek.

# Bear License Applications

**N**EW applications for this season's 100,000 bear licenses are now available to 1986-87 hunting license holders, *upon request*, from hunting license agents, Pennsylvania Game Commission regional offices, and the PGC's Harrisburg headquarters at 8000 Derry Street. Applications may be mailed or hand delivered to PGC headquarters during the period September 1 to 10 a.m. on October 1, at which time the public drawing will be held. If less than 100,000 applications are received from September 1 to October 1, licenses will be issued thereafter on a first-come, first-served basis until exhausted.

## Use Current Form

Only the current official application form/envelope is valid, and under no circumstances may a person apply for more than one license. Not more than three applications may be submitted in one envelope. The appropriate pre-printed number on the outside of the envelope indicating the number of enclosed applications *must be* circled in ink. *Also*, a check mark *must be* placed in the appropriate box to indicate that

the application is from a nonresident of Pennsylvania. Residents and nonresidents may not submit applications in the same envelope. The return section of the envelope/application must have sufficient first-class postage affixed and be self-addressed to any one of the applicants; if this condition is not met, all applications enclosed therein will be processed and placed in a dead letter file from which they can be reclaimed only by an applicant making the necessary arrangements with the Commission.

Remittances for licenses shall be in the form of negotiable check or money order made payable to the "Game Commission" for applications enclosed at \$10 each for residents and \$25 each for nonresidents of this commonwealth.

All licenses or applications will be returned to the individual whose name appears on the return section. It is the responsibility of this person to deliver the license or applications to the other individuals who applied with him.

Any application which fails to comply with the act or this section will be automatically rejected.

## Wildlife Art Show

The Game Commission's first invitational wildlife art show will be held at the Middle Creek Wildlife Management Area Visitors Center, near Kleinfeltersville, August 22, 23 and 24. Show hours are from noon until 5 p.m. on Friday and Sunday, 9 a.m. to 5 p.m. on Saturday. Admission is free. Everyone interested in wildlife art is urged to stop by to meet the numerous renowned artists who will be there and see their works. Original artwork and prints will be available for purchase.

### Cover Story

What was once primarily a leisurely pastime for those who wanted nothing more than to while away a summer evening with only a trusty rimfire and hopes of sneaking within 50 yards of a careless chuck has become a sport of fine precision. Today's dedicated varmint shooters use the most accurate equipment available and spend countless hours on the range, developing the skills required to consistently hit a target the size of a softball at ranges approaching the length of four football fields. Chuck shooting is a perfectionist's sport, one that can bring out the best shooting abilities in all of us. Just don't forget that fluorescent orange hat.



# My Mountains

I LEARNED to hunt not in the big woods of northern Pennsylvania, but in the pine barrens of southern New Jersey. This is vast wilderness land where wilderness has no right to be: sandwiched between major metropolises and the playground of the Atlantic Coast. It's home to the "pineys" and the Jersey Devil, or at least to their legends. The barrens is a country of black-mud swamps, scrubby oaks and threadbare pines, and impenetrable jungles of brush and briars. Endless miles of winding sand roads seem to lead nowhere but farther into what, some will say, is a forbidding land.

But the pine barrens is a wonderful world for hunters. It's a place where bobwhites call clear and sweet at dusk, where the heaven-high sound of geese signals their move to a hidden pond, and where a whitetail can steal a little crimson bounty from a cranberry bog. It has its own flavor of wildness, with a bit more tang than most, but it has one serious flaw: this land is flat. I need mountains.

A friend who went to college in Colorado told me he had finally convinced his roommate, a native westerner, to travel east to see the mountains of Pennsylvania. The fellow from the high country was disappointed. "You call these mountains?" he quipped. "Why, back home we'd hardly call them foothills!" That well may be, but for us, our Pennsylvania mountains are enough, and they're near.



LINDA pauses on a misty summer day to appreciate the view in Pennsylvania's Grand Canyon country—one of many impressive regions in the state's mountains.

In this state, the mountains are a part of what it means to be a hunter. That's a funny thing, because some of the best hunting in Pennsylvania can be found nowadays in the farmlands or in that mixed country of wood lots and reverting fields. The land is more fertile where it's not as steep, meaning the wildlife is better fed. In Pennsylvania's true mountain counties, the deer herd is not what it once was, the forests too big, the soil poor and thin. Yet, I'm not alone when I say I feel I've been cheated out of my hunting season if I don't make at least one trip to the mountains. If we get venison there at all, it probably will come from a spike, but I think we go to the mountains for another kind of sustenance.

## Amusing

One of the most amusing things about being in the big woods in hunting season is trying to find a local to talk to. Approach a bearded fellow wearing a worn cowboy hat, plaid wool shirt and muddy boots, the one who looks like he literally crawled out of the surrounding hills, and you're in for a surprise. "I'm sorry," he'll say, "I'm not from these

## Another View...

by Linda Steiner

## First-Time Hunters and Trappers

All first-time hunters and trappers are reminded they must take a Hunter Education course before they can buy a hunting license or a furtaker's license in Pennsylvania. Each year there is a rush of students trying to get into a course just before the season opens. It is impossible to take care of some of these, so they are disappointed. If you want to hunt or trap this year, it is advisable to take this course immediately. Check the sporting pages of your newspaper, your area sportsmen's club, or with the nearest Game Commission officer for dates and locations of courses.

***Do it now!***

parts. I'm just up here from Philadelphia (or Pittsburgh or Allentown)." None of us wants to be recognized as a flatlander when we're in the mountains. We're flattered to be mistaken for riderunners.

An old hunter once confided to me, wistfully, that it had always been his wish to "walk an inch off the top of every mountain in Pennsylvania." Of course he never did it, but he had a lifetime of fun trying. There was always something new to see by hiking "on out the ridge," he said, and it was always a wonder what would be found on the other side. In the mountains, we don't feel we're treading in each other's footsteps.

Whenever I'm riding across on one of our major east-west highways, I can't just admire the scenery as I roll by. I'm a hunter, and I imagine myself up in those hills. I'd like to be walking along that wooded bench, where the steep side flattens just before the mountaintop. I bet the turkeys scratch there. I long to climb up to that lone pine on the rocky point, just for the view, and I wish I had time to follow that hollow upstream, just to see where it goes. Like the old-timer, I'm drawn by the freedom of the mountain distances.

Pennsylvania is fortunate in its geo-

graphic location. By staying at home, a Pennsylvanian can get a sampling of the mountains in states to our north and south. New England's White Mountains, and the Green, didn't seem strange to me because I'd seen their like in northern Pennsylvania. Here, as farther north, maples are crimson in the fall, the beech as gray-limbed, the hemlocks as cold a green. The Blue Ridge and the hills of West Virginia seemed equally familiar because I'd hunted the oak and hickory forests of southern Pennsylvania.

Though forest types vary, mountain laurel can be found nearly everywhere in the state's high country. It may cloak whole hilltops and spill down the sides, in bloom like living pink frosting, or it may be just a lone bush, a signpost of the wild.

I've hunted deer and bear and turkey in Pennsylvania's big woods, but I don't find an essence of the mountains in these animals. They're too likely to filch a meal at the edge of the suburbs or from a farmer's field. But when I see a raven, I see the hills. I've met the ebony bird only in the remotest forests of the state, when my hunts had taken me to places I considered truly "back in." I've come to associate the raven with the heart of the mountains.

## Grand and Wild

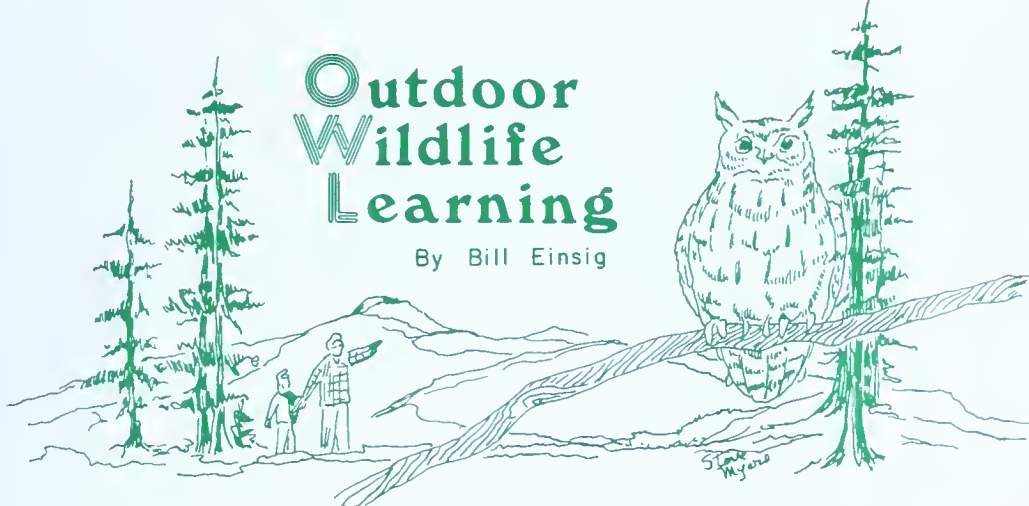
Maybe it's the size of the land itself, sweeping up and away, that grips us so. They may not be the Rockies, or even the Smokies, but Pennsylvania's mountains still seem grand and wild, untouchable and untamable. It's a comforting, not frightening, thought.

We know we can always climb to the top of a ridge, where hawks ride the wind, and gaze over the valley beneath us. The bigger buck might be in the bottomland cornfield, but it's good to be up here for a day, as if we've climbed out of the reach of problems that weighed us down in the lowlands. Perhaps because we can see so far from the mountains, they reassure us with a world of endless possibilities.



# Outdoor Wildlife Learning

By Bill Einsig



**T**HERE IS something about a flowing stream that captivates our attention as thoroughly as a crackling fire. Maybe it's the constant movement of everchanging shapes and patterns, or maybe it's the sound—subtle, soothing and monotonous.

It could also be that streams are mysterious. They hold a world of life so near to us yet so different and so difficult to observe. When we stand beside a creek, we know there are creatures surviving in a watery realm where we could not. We have difficulty seeing them because the rushing water cloaks its world, giving us only glimpses of the creatures within.

Still another thought usually comes to my own mind when I visit even a small stream. I have to think of how I could share this experience with students. If I brought them to this stream, what would we do? How would they study this hidden world?

Older students might conduct thorough stream studies with some technical analyses if they had the equipment. They could measure the dissolved oxygen, pH, and alkalinity. They could construct temperature profiles and calculate the volume of flow.

Younger students, and classes without much equipment, can also study the stream community in exciting ways. Here are a few ideas to start with.

*Does the stream have a uniform character?* Is it continuous rapids or continuous slow water? Perhaps pools and riffles seem to alternate so that the stream is a series of quiet pools connected by fast-moving riffles. Discuss how the different current speeds could affect stream life in each area. In which area would organisms be more likely to have suction cups and hooks on their feet to hold them in place?

*What is the bottom of your stream like?*

Is it muddy or rocky? It might have a rocky bottom in some places, a muddy bottom others. What could cause that? Compare the current in both areas. Could the current determine the kind of stream bottom?

*Is the current the same speed in all areas of the stream?* Use a piece of styrofoam, or a ping-pong ball, as a float and time its movement through a course 10 feet long. Several student teams can conduct this test at the same time, if well organized. Each team should have its own stream section, timer, float and the following job assignments.

**Dropper**—On signal, this person drops the float.

**Timer**—This person times the float trip and gives the signal to the Dropper.

**Catcher**—Someone has to catch the float after each run!

**Recorder**—The notekeeper who carefully records the float times for the team.

Each group should time at least five runs and then average the results. Compare currents speeds at riffle and pool areas. Would this difference be important to stream life? Was there much variation in the runs of each group? Sometimes the float gets caught in a small eddy and moves in circles before heading downstream. There are small sections of the stream where the water does not move along with the rest of the flow at the same speed.

*How wide is the stream?* Is it the same width at all places? Use a measuring tape or string and a yardstick to measure the width in several locations. Which are wider—pools or riffles?

*How deep is the stream?* Stretch a string from one bank to the other and stake it at each end. Measure water depth along this string at even intervals—every six inches or every foot depending upon the size of

**Waterstriders**—While these animals look like spiders, they are actually predatory insects that literally walk on water to catch other insects that fall on the surface. Prove it to the class by counting legs—insects have six legs, spiders, eight. You'll have to be very quick to catch a strider, though.

• **First** – it's still for  $\text{Sym}(\mathfrak{g}) \otimes \mathfrak{g}^*$  • **Second** – the Lie bracket on  $\mathfrak{g}$  • **Thirdly** – use the properties of the **Adjoint** and **Serret** •  
 • **Just** – use the Lie bracket on  $\mathfrak{g}$  • **Fourthly** – use the Lie bracket on  $\mathfrak{g}$  • **Fifthly** – use the Lie bracket on  $\mathfrak{g}$  •  
 • **Sixthly** – use the Lie bracket on  $\mathfrak{g}$  • **Seventhly** – use the Lie bracket on  $\mathfrak{g}$  • **Eighthly** – use the Lie bracket on  $\mathfrak{g}$  •

A stream within walking distance of a school is a valuable teaching tool, a classroom filled with wonders of its own. Don't miss all it has to offer your students.



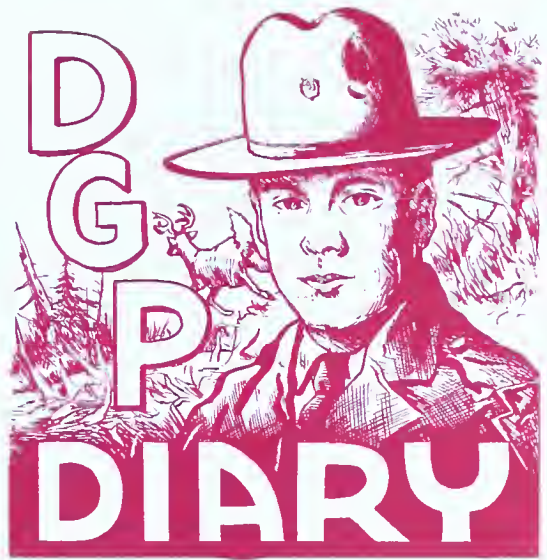
**I**T STARTS EACH year in August and continues into November. Close to 50,000 youngsters, and some folks not so young, file into sportsmen's clubs, churches, firehouses, schools, and town halls throughout Pennsylvania. They go to receive instruction in the safe handling of sporting arms and hunting ethics. Waiting to provide that training are over 4000 volunteer instructors located in all 67 of the state's counties. What is this phenomenon that draws so many people from the comfort of a warm bed on a Saturday morning? It's called hunter education.

Hunter education started in Pennsylvania in the 1950s and since the Game Commission assumed responsibility for the program in 1959, more than 1,000,000 students have taken a course. Participation was on a voluntary basis until 1969, when it became mandatory for first-time hunters under 16 to complete the course in order to be eligible to purchase a hunting license. In 1968, the last year before hunter education became mandatory for youngsters, there were 530 hunting accidents in the state. During the 1985 hunting season, with hunter ed now required for all first-time hunters regardless of age, and many more licensed hunters afield, the number of accidents was reduced to 128. Hunter education works.

Now, in 1986, the Game Commission has reached another milestone in the training of safe and responsible sportsmen. Effective January 1 of this year, all Pennsylvania hunter education courses had to be at least 10 hours in length. Instruction on the trapping and hunting of furbearing animals, outdoor safety, first aid, wildlife identification, and field care of game has been added to the curriculum to more fully educate our new hunters and trappers.

If you or someone you know needs to take hunter education this fall, do it right now. For a listing of available courses, check with local hunting license issuing agents, sportsmen's clubs, certified instructors, newspapers, Game Commission regional offices, and district and deputy game protectors.

Each year around Thanksgiving, I receive phone calls from desperate parents who need a hunter ed course for one or more of their children. Without it, their youngsters can't go deer hunting. And every year, I have to be the bearer of bad news when I inform them that all of our courses are completed for the fall. Don't be



## By Keith Sanford

District Game Protector  
Chester County

caught in this predicament come hunting season.

*August 1*—People tend to romanticize the job of a game protector, thinking an officer spends all his working hours in the fields and forests of his assigned patrol area. If such a position exists, I'd like to find it. Depending upon the time of year, 30–40 percent of my time is spent in the office, doing paperwork and other administrative duties or on the telephone returning, answering, or making calls. I spent the first half of today completing monthly reports and putting together an article for my newspaper column. In the afternoon, I managed to break away from the phone and desk long enough to deliver hunter education supplies to John Conner, one of my volunteer instructors in the London Grove area. The materials will be used in conjunction with the Southern Chester County Sportsmen and Farmers Association's annual fall class in September.

*August 2*—Throughout the course of a year, game protectors hold a number of training sessions for their deputies. In many cases, these meetings are conducted at the officer's home. One, however, is a dinner meeting which is held at the expense of the Game Commission. This morning, I met with a restaurant owner in the Thorndale area and made the necessary arrangements for a deputy din-

ner meeting which I'm planning for October.

Later, I dropped off a pair of films to hunter ed instructors in the Romansville and New London areas, for use in their upcoming courses.

In the afternoon, I was back in the office working on special permit renewals when I received a call from Coatesville about a raccoon which had walked into a woman's home. When I arrived at the caller's residence, I found the animal curled up and sleeping on the garage floor. I snared the coon with my catch-pole, dropped it into a carrying cage, and transported the animal several miles south of town before releasing it unharmed. Just when you think you have wild animals figured out, they show up in places you'd never expect to see them.

*August 5*—Picked up a Hancock-style live beaver trap this morning from our regional office in Reading and headed south with it to West Nottingham Township. Upon returning home from vacation, a local resident found that two beavers had moved into her pond and were well on their way to establishing a permanent residence. The animals had felled several large trees and the property owners feared several more would come down if something wasn't quickly done.

I placed the trap in front of a heavily used slide and baited it with aspen cuttings, hoping to live trap the flattails before they cause more damage.

*August 6*—Received a call first thing this morning from my beaver damage complainant in West Nottingham Township. The fresh cut aspen was too much temptation for one of the animals to resist, as it was firmly caught in the basket-like trap. I took the beaver, trap and all, several miles

east and released him along a remote section of Big Elk Creek. As a side note, I was never able to catch the second beaver. However, possibly due to increased human activity in the area, it soon moved out of the pond and took up housekeeping elsewhere.

In the evening, went back to State Game Lands 43 and ran a pair of deputies through the handgun course again. They didn't qualify in July, and had to do so before being allowed to participate in any law enforcement activities.

*August 7*—After disposing of a road-killed deer along Route 41 in Londonderry Township, I headed to the Reading office to pick up some supplies and return some borrowed equipment. Back in my office, I spent the rest of the afternoon preparing a comprehensive list of the hunter education courses which will be offered in the county this fall. This list goes out to almost forty hunting license issuing agents, newspapers, deputy game protectors, and hunter ed instructors within my district, as well as to Game Commission officers in the northern part of the county.

*August 8*—In the morning, dropped off hunter ed supplies to one of my instructors in the Jennersville area and then disposed of a roadkilled deer in London Britain Township. In the afternoon, stopped off at the office of the Chester County Parks and Recreation Department in West Chester. While there, I spoke with some of the department's personnel concerning their plans for a controlled antlerless deer hunt at Nottingham County Park during the upcoming hunting season. Later, attended the monthly meeting of the Shadyside Farmers-Sportsmen's Convention League in West Chester.

*August 9*—This morning, packaged and then delivered hunter ed materials to the Octoraro Middle School in Cochranville. Spent the remainder of the day catching up on my paperwork as I will be starting vacation tomorrow.

*August 27*—After a two-week break, spent all morning and part of the afternoon going through the mountain of mail which had accumulated during my absence. Just when I thought the day was going to be nothing but routine, I received a call from an individual in Pennsbury Township. He had just found a freshly killed buck on his front lawn. Examining the carcass and the





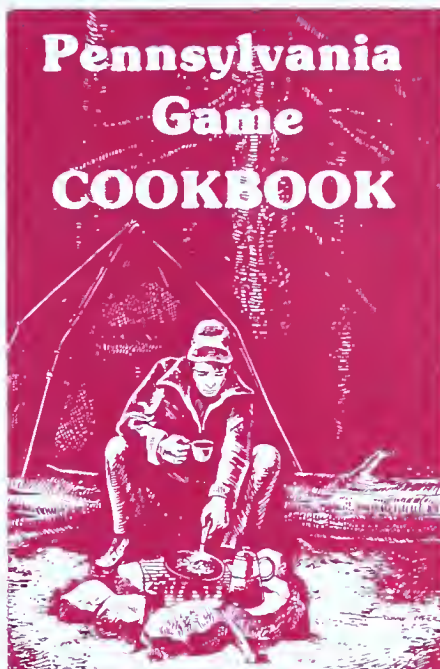
area, I could see the deer had been hit with buckshot but had somehow managed to travel well over a hundred yards before dying. At the edge of the road was a freshly spent shotshell which had been loaded with 00 Buck. Before the day was out, another deer, also the victim of a shotgun blast, was found dead approximately 300 yards farther down the road. I interviewed the property owners where both deer were found, as well as some of the neighbors in the area. No one had heard shooting or seen any suspicious activity the previous night. I left, frustrated, with an empty shotgun shell and two dead deer for my efforts.

*August 28*—Met with Jim and Jeff Hickernell, Food and Cover Corps employees for Chester County. A Farm-Game cooperator near Oxford had just had one of his horses injured by gunfire. Although the incident couldn't be linked to sport hunters, the farmer was seriously considering pulling all of his property out of the public access program. Jim and Jeff posted the area with Game Commission signs, urging gunners to use caution when hunting in the vicinity of livestock and to ask permission before entering the property. Fortunately for area sportsmen, only a portion of the farm was closed to hunting.

With open hunting lands in southeastern Pennsylvania at a premium, we can't tolerate any kind of hunter behavior which would result in either damage to personal property or in the closing of public lands to sportsmen. If you witness abuses to public hunting grounds, I urge you to report them to your local game protector.

*August 29*—As mentioned in a previous column, all Game Commission special permits expire at the end of June. Those required to file annual reports have until August 31 to do so. As is the case at income tax time, some folks always wait until the deadline to fulfill their legal obligations. As you can probably assume by this, I spent the bulk of the morning in the office reviewing last minute special permit renewals and annual reports.

Later in the day, I met with a representative from the County Treasurer's office in West Chester to review the regulations governing the issuance of antlerless deer hunting licenses.



**Pennsylvania Game Cookbook** is a 96-page collection of delicious recipes submitted by **GAME NEWS** readers. It includes methods of preparing all kinds of game available in Pennsylvania, plus some recipes for moose, elk, and other species. \$4.00 delivered from **GAME NEWS** office.

I finished the day patrolling in Pocopson Township.

*August 30*—Spent the bulk of the morning patrolling in Highland, West Fallowfield, Upper Oxford, New London, and London Grove townships. With dove season due to open shortly, I wanted to check on local crop conditions and bird populations to get a feel for where the majority of the hunting activity would be on opening day.

In the evening, held a deputy meeting at my home and finished up the day with an hour's worth of paperwork and reports.

AMONG MY most prized possessions are a pair of pack baskets made from white oak splits. A friend, Darryl Arawjo, wove the baskets from trees cut on my land. We didn't cut just any trees: Darryl wanted young ones, four to six inches in diameter, arrow straight, and with no limbs or knots.

He used only the first six or eight feet of a tree. He split the trunk in half using a mallet and a froe, an L-shaped tool with a thin steel blade as its head; he drove the froe lengthwise down the trunk with the mallet. He split each half into two quarters, each quarter into eighths. Using a smaller froe and then a pocketknife — and shifting from cutting *across* the annual growth rings of the wood, to cutting *parallel* to them — Darryl reduced the wood to long thin bands about half an inch wide by perhaps a sixteenth of an inch thick. He wove the splits into baskets, one large and one small, sturdy golden-yellow vessels for carrying lunches and tools and most anything else.

Darryl's craft preserves a technology over two centuries old. It uses as its only raw material wood, a resource that shaped our way of life. Pioneers used wood for articles from eel traps to wagon wheel hubs. Wood, says Eric Sloane, a chronicler of American life, "spanned rivers for man; it built his home and heated it in the winter; man walked on wood, slept in it, sat on wooden chairs at wooden tables, drank and ate the fruits of trees from wooden cups and dishes. From cradle of wood to coffin of wood, the life of man was encircled by it." We use less wood than we did in the past, but it remains a serviceable, versatile substance.

### Best Hardwood

White oak is "the best all-around hardwood in America," according to Donald Culross Peattie, from whose book *A Natural History of Trees* I have learned much of what I know about wood. As well as being split and woven into baskets, white oak is used in boxes and bridges, for firewood, fenceposts, and house and barn timbers. The frig-



Chuck Fergus

ate *Constitution*, which fought in the Revolution, had a gun deck of Massachusetts white oak, a keel of New Jersey white oak, and knees of Maryland white oak framing her keelsons. White oak is in demand for furniture, flooring, paneling, and whisky barrels.

The most durable wood in contact with the ground is locust. A locust post can last a century. I do not expect to last that long, but I did set locust for my gate and mailbox. Locust is a hard, stiff wood with an incredible density that makes it the very best for burning in a stove: one cord possesses the heat value of a ton of anthracite. Locust has been used for railroad ties, rake teeth, tool handles, ladder rungs, and the nightsticks of policemen.

At the other end of the hardness scale is cedar. It, too, resists rotting in a fence. Since its aroma repels insects, it has long been fashioned into clothes chests. Cabinetwork, carvings, duck decoys, shingles, and the superstructures of boats have been made from cedar. In many locales the colonists quickly used up all available cedar trees; then they resorted to "mining" cedar, dredging it up from the bottoms of swamps where it had lain submerged for hundreds of years. It remained in good condition.

Of all the woods in the settlers' diet, pine — especially white pine — was the staple. A list of items crafted from pine



would stretch for pages. Bobsleds. Blackboards (painted black, before slate). Window sash. Door frames. Roof shingles. Siding, matchsticks, the towering masts of sailing ships, figureheads. Pine is easily cut, yet strong and warp resistant. It has long been the lumber of choice for framing houses. The studs and rafters in my house are Pennsylvania white pine.

Three other pines are common in our state: red pine, Virginia pine, and pitch pine. These have generally gone into more plebeian products than white pine, such as crating, ladders, derricks, and barn floors. Pitch pine formerly grew in my woods, but now I find it only as long rotten-red trails of sawdust, studded with gnarled, half-buried chunks: pine knots. Pine knots make wonderful firestarters, their concentrated saps and resins blazing up fiercely. Settlers used to secure a pine knot to a hickory withe, ignite it, and

use it to light their way through the forest at night. Many a deer was held by the flames long enough for a colonial hunter to draw a bead on the fascinated, glowing eyes.

Pitch pine was “candlewood” to the settlers; American linden was “boxwood,” a name that survives today. The dried wood can be cut thin, scored, and folded into boxes. A linden box is very light and can be weighed along with its contents—comb honey or berries, say—without appreciably changing the weight.

### Superstition

Sassafras is a tree of superstition. Its inner bark, dissolved in various liquids, has made potions to banish afflictions and to arrest aging. Settlers carved spoons from the wood, inlaid cradles and doors with it, stored Bibles in sassafras boxes to keep evil spirits away. The odor of the wood—snappy and lively—is reputed to drive away bedbugs, and many bedsteads have been made from it. A ship with sufficient sassafras in her hull, so the story goes, will never sink.

The sycamore is a big spreading tree with patchy multi-colored bark. Settlers made cart wheels from the trunk, sawing off a disk and boring an axle hole through the center. Giant sycamores are often hollow, and farmers have occasionally stabled a pig or a cow inside one. They’ve used sections of the hollow trees for tubs, storage bins, and barrels. The wood, difficult to split, makes a superb chopping block.

Another tough wood—its fibers intertwined and cross-braided—comes from the black gum tree. Black gum is used for handles of heavy-duty tools, such as mauls, and for rollers over which cables pass. Like sycamore, black gums often grow hollow with age. A cut section of hollow gum, with a board laid over its top and a hole drilled in its side, makes a serviceable beehive—hence the traditional term “bee-gum.” Or, outfitted with trigger and door, a good rabbit trap . . . called,





of course, a “rabbit-gum.”

The tensile strength of hickory wood is said to equal that of wrought iron. Shock-resistant, hickory makes an ideal maul. Settlers also used it for ax handles, wagon hubs, and skis. Pignut hickory is “broom hickory”; the end of a short section can be split back in narrow strips to fashion a broom for sweeping. Shagbark hickory made up into sturdy boxes and ramrods for muzzle-loading rifles. Old-time furniture makers learned to set seasoned rounds of hickory in posts of green, unseasoned maple; drying, the maple clamped the iron-hard dowels securely.

Maple? Strong sugar maple goes into furniture, flooring, and rolling pins, while weaker red maple is relegated to clothes hangers and clothespins. In the days when a hunter made his own gunstock, he often chose “curly maple”—sugar maple with an irregular wavy

grain that produced an eye-catching pattern.

The traditional wood for gunstocks (and for cradles, too) is black walnut: resistant to warping, light in proportion to its strength, and invested with a dark, often highly figured grain. Walnut proved the finest cabinet wood in North America; colonists were exporting it to England as early as 1610. Walnut is becoming ever more scarce and expensive today, but in times past it was used profligately, in snake-rail fences and as railroad ties.

The wood of paper birch has limited usefulness as lumber. But another part of the tree, the bark, excels as a waterproof sheathing for canoes. The Eastern Woodland Indians showed settlers how to strip off the white bark, sew pieces of it together using the slender, cordlike roots of the tamarack tree, and stretch it over a frame of cedar or arborvitae wood. Holes and seams were caulked with pine resin. A birch bark canoe is light, flexible, and strong.

The straight, towering tuliptree was often hollowed out into a canoe. Daniel Boone is said to have floated down the Ohio in a 60-foot tuliptree dugout when he headed west into *terra incognita*. The wood has also been used for well linings (it imparts no taste to water) and house trim. Today it is a major source of pulp for book paper.

### Wood Uses

American elm: ship blocks, wheel hubs, ox yokes; its bark was braided into whips.

Apple wood: Its hardness and durability matched it to constant-use machinery, particularly cogs, wheels, and shuttles.

Red spruce: Mostly it has been used for lumber. Sometimes, though, the wood develops growth rings that are exceedingly narrow and of uniform width; this finest red spruce finds its way into the bodies of violins.

Black cherry: showcases, bars, scientific instruments, fine furniture, caskets. Another Daniel Boone story holds that he made several cherry caskets,



even slept in them on occasion, and gave all but the last to needy corpses.

The thick, pithy branches of sumac were hollowed out into spiles, which the settlers tapped into holes bored into sugar maple trees; the spiles conveyed the dripping sap into buckets. Boiled, the sap yielded maple syrup.

The wood of the Ohio buckeye, light and split-resistant, has been much used for artificial limbs.

Dogwood? Since it resists sudden shocks, it has seen service in mauls, chisel handles, sled runners, and golf-club heads, and as the shuttles of looms in the textile industry.

White ash wood is light, tough, and pliant. Find it in the D-handles of spades and shovels (the old kind bought at auction), in church pews and bowling alley floors, in oars, airplane struts, hockey sticks, and, of course, baseball bats, although these days you are just as apt to hear the *pling* of a ball against metal as the *crack* of ball against ash.

White ash has a cousin, black ash,

also called "basket ash." It can be split into thin strands. The Indians wove the strands into fish traps; the settlers, into chair bottoms and baskets. My friend Darryl Arawjo tells me that black ash makes serviceable baskets, although he prefers white oak, which is harder, less brittle, and more plentiful in Pennsylvania. Which brings us full circle, more or less, having barely planed the surface of the many uses of wood.

### Baskets

Darryl and Karen Arawjo live in Pennsylvania's Pocono Mountains. They make a wide variety of baskets by hand from white oak splits: egg baskets, market baskets, sewing baskets, hampers, apple baskets, picnic baskets, fly-rod cases, fishing creels, and many other beautiful, serviceable containers. Their address is P.O. Box 477, Bushkill, PA 18324. You can see the Arawjos at arts and crafts fairs throughout the state, or request a brochure of their products.

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**YOUNG ARCHERS BENEFIT** from shooting with their peers. The competitive aspect helps, as does the constant exchange of information.

Assisting Archery's . . .

## Head Start Hunters

By Keith C. Schuyler

**I**T IS TRUE that many of today's finest target archers and bow hunters were late on the scene. It is just as true that the best of the lot began with the bow in their backyards while youngsters.

Good examples are Pennsylvania native John Williams, who won an Olympic gold medal while still a teenager when the sport of archery was reintroduced to the international games after a 50-year absence. He was succeeded by Darryl Pace, of Ohio, who did the same. A number of Pennsylvania champions tackled the bow while quite young, including a son who bears my name and took the state barebow crown. Darwin L. Kyle's kids, Mike,

Buddy and Tommy, featured here last August, are still tearing up the state and national target circuit; these Altoona youngsters started with the bow not long after discarding diapers.

All of the above started on the target line with recurve bows. These might be clues as how to best get a youngster underway with the bow. As the father of three sons, all of whom began with the bow as soon as they could draw a string, some of what I learned from them may be helpful for those who want to get their own children started.

Despite the success of the compound bow in most aspects of archery, I believe every beginner should learn about the basic dynamics involved in the stor-



age and release of energy which made the original bow one of the most important developments in the history of mankind. An analogy might be the introduction of a studious auto driver to a simple Model-T Ford motor before he tackles one of the computerized versions of today. In general, each produces the same end result, but there is a world of difference in how the energy is controlled.

An archer utilizing a longbow or recurve soon learns how to make adjustments or repairs in the field. Those shooting a compound are more apt to head for the nearest archery shop to get assistance when their bows malfunction. Not only is there the now "basic" compound, there are also adaptations of the concept which challenge the ability of even the more knowledgeable archer to make adjustments and repairs. Yet, a bow is still a bow. And it is the archer who physically stores the energy in the limbs by drawing a string and who releases it at his option.

Anyone who shoots a simple stick and string has a better feel of what is happening from beginning draw to re-

lease. He is much more a part of this total interaction between himself and his tackle. Perhaps that is why some of the greats in the sport—such as Bear, Hill, the Thompsons, Pope and Young, who first made their own bows and arrows—are remembered for their exploits.

### Get Them Started

Doubtless there will be youngsters who will stay with the modern versions of the ancient bows, both for competitive purposes and hunting. Regardless, we are more interested here in getting them started.

Important for beginners is that they are started with tackle they can handle. Too often a youngster is given a hand-me-down that is much too strong for even a beginning adult. Initially, no matter the apparent physical ability of any individual, shooting the bow calls on muscles that are not developed for this particular exercise. However, repeated shooting with a light bow will soon make it possible to move upward in weight. Too heavy a bow will cause physical distress at first, and the kid

**ALONG WITH VETERAN hunters, youngsters get hunting practice by shooting at running deer target during Forksville Festival. They hit it, too.**



won't hit much of anything. The same can be true if the bow is warped and/or arrows are not properly spined for it.

This is reason enough to opt for a good secondhand bow to get a novice started. It won't be long until the individual can handle a heavier one. This might be the point at which a compound bow should be considered. Not that I wish to promote this newer bow, but utilizing only a longbow or recurve will discourage participation in most competition where any bow is permitted. Only Pennsylvania FITA and National Archery Association are keeping competitive shooting with the precompound bows alive.

A good book on archery instruction can be of considerable help in teaching someone new to the sport. Not that you are incapable in the use of the bow and arrow yourself, but any good book will lay it out, step by step, and help you to avoid missing important points necessary for developing proficiency.

### Delicate Point

There is a delicate point in teaching someone in your own family. For reasons that perhaps only a psychologist could enumerate, hidden or open resentment can develop in a student who is too close to you. This is time to turn him over to another capable instructor. Or you might prefer professional in-



struction for your youngster. A six-day course is available at The World Archery Center. For information, contact Mrs. E. B. Miller, 67 Old Stone Church Road, Upper Saddle River, N.J. 07458. This school will observe its 50th year of operation in June of 1987, and has been host to many of today's archery greats. Another out is to promote membership for your protege in the nearest archery club. There are always qualified archers willing to help novices.

Don't feel that your job is finished just because you no longer have direct responsibility. Keep an eye on things to make sure the youngster is receiving proper guidance. You may even be called upon to take the job back if your student realizes you weren't so bad after all. Keep in mind that competence on the target line or in the hunting field doesn't necessarily qualify anyone to be a good teacher. Some archers are good without knowing why, and others simply do not have the ability to properly transmit their knowledge.

In competitive target shooting,

**WOODCHUCK HUNTING** is a good way to get young bow hunters started before they take on big game. It takes real ability to bag a chuck with an arrow.





young persons are classified according to age on the assumption they will be shooting with others of similar capabilities. Such shooting is to be encouraged. Either they will develop and acquire their own knowledge, or they will quickly recognize the need for further instruction. Within this format, new shooters develop quickly through observation and an exchange of information with their peers.

### Time Factor

When it comes to hunting, a time factor is imposed by the requirement that all hunters must be at least 12 years of age before they may purchase a license. In Pennsylvania, the ultimate objective of bow hunters is to take a deer. This poses a need for good judgement on your part. It has always been my belief that no one should hunt deer with the bow unless he can handle a recurve or longbow of at least 40 pounds—35 for a compound. With either of the former, anything under full draw reduces its potential killing power. It is not uncommon to release at less than full draw in the excitement of the moment or due to poor footing or the need to hold in an unfamiliar position. This can result in a miss or a poor hit. Such results might discourage the novice from ever hunting again, not to mention the emotional trauma associated with merely hurting, but not cleanly killing, a deer. With a compound, one of its merits—full draw—must be accomplished to shoot the arm. This means that the maximum capability of both the bow and the archer are probable. Of course, many other factors enter into each situation, so there is no guarantee of favorable results. That is part of what makes hunting the challenge it is, regardless of the arm utilized.

Before taking a tyro on a deer hunt, mental conditioning and shooting ability under actual hunting conditions might be tested on smaller game. Shooting at rabbits, woodchucks or

## GAMEcooking Tips

The peach tree we planted several years ago has given us the sweetest, most beautiful fruit I've eaten in a long time. After having fresh peaches often for breakfast, as well as in desserts and jams, our little tree was still providing an incredible amount of fruit. In looking for new ways to use it, this recipe was born. Serving doves poached in a fruity peach sauce, on buttery french bread toast, is an easy and different way to use these early fall birds. Try it!

### Doves Poached in Peach Broth

- 8 doves, cleaned, skinned and dried
- 8 ripe peaches
- ¼ cup melted butter
- 8 slices french bread, buttered

Place doves in deep baking dish. Peel peaches and reduce in a blender. Add melted butter and blend to combine. Pour peach-butter over doves and cover. Bake at 275° for 45 to 55 minutes or until juices run clear and leg moves freely.

Toast bread and butter generously. Just before serving, run bread under the broiler until butter sizzles. Place one dove on top of each bread slice, and pass the peach broth at the table. Serves 4.

A green vegetable adds color contrast to this meal. We like green beans prepared with a bacon and vinegar dressing, for flavor contrast also.

—BY CAROL VANCE WARY

squirrels will give some idea what to expect from a young person who has a lifetime of hunting ahead.

No, gaining proficiency on the target line will not guarantee that your young companion will be a good hunter. But it surely will give him a head start and aim him in the right direction.



Photo by Bill Stephens

**LATEST WILDCAT TO attract attention is 224 Cheetah. Here, a group of chuck hunters hopes to turn one loose.**

## ***THE SPEEDSTERS***

**By Don Lewis**

**Photos by Helen Lewis**

**T**HERE'S a 300-yard shot," I whispered.

Helen immediately found the chuck in the 7 x 42 Swarovski binoculars and, after a long look, placed the rifle on the shooting rest and sagged into a comfortable shooting position.

"Should I hold an inch or so above the shoulder?"

"I wouldn't. We zeroed the 17 in to hit two inches high at 100 yards. That should put the bullet smack on at the 300-yard mark. I got the load you're using from Speer's latest reloading manual, and velocity is around the 4000 fps mark."

The whip-like crack of the potent 17 Remington reduced the chuck population by one, and I kidded Helen that it would have been impossible to miss a

chuck that size since it weighed a trifle over 13 pounds.

The 17 Remington came into existence around 1971, when it was first offered in Remington's Model 700. It's the smallest commercial caliber offered today. Contrary to what some dedicated varmint hunters believe, the 17 is not the smallest bore diameter. A few years back, wildcat barrel makers experimented with bore diameters as low as 14. Going to that size opening isn't very practical and it was exceedingly difficult to make.

The appeal of the tiny 17 is its speed. Before Remington introduced their 17, which is based on the 223 case, I cranked out several hundred 17-caliber wildcats for H&R's 17-223 Ultra Wildcat. P.O. Ackley experimented with the



17 Hornet and 17 Bee. These were nothing more than improved versions of the original cases when necked down to accept the 17-caliber bullet.

A number of 17-caliber creations came from the 222 Remington and were referred to by the wildcat name of 17-222. Experimenters used 20- and 25-grain bullets, and I have seen chronograph reports of 17 velocities going above 4500 fps.

The downfall of the 17 caliber is bullet weight. I really don't know how many weights are available from custom bullet makers, but even the 25-grain, the one most widely used in the 17, is no match for even a modest crosswind. The lightweight 25-grain bullet literally fragments on contact. It's deadly on small animals such as chucks, crows and prairie dogs, but by no means should the 17 ever be used on larger animals.

Over the years wildcatters have experimented with the 17 caliber in cases larger than the 222 or 223, but nothing significant was gained in velocity, and throat erosion continued to make barrel life short.

### Moribund Hornet

The 22 Hornet has been in a moribund state for 20 years or more, despite the attempts by its followers to revive the old varmint cartridge. The Hornet was developed in the early 1930s as a spinoff from the 22 WCF black powder cartridge.

The Hornet does have some claim to fame. It was the first hot varmint cartridge to become a factory product, and it brought life to the varmint hunting realm. With the tiny Hornet came the means to shoot beyond 100 yards with precision. Early Hornet loads



**ASSORTED 17-calibers** have attracted the notice of varmint hunters. Helen Lewis has good luck with H&R's 17-223 when wind velocity is not too high.

pushed a 45-grain bullet around the 2400 fps mark, but today's powders offer several more hundred feet per second.

Soon after the Hornet was introduced, Lysle D. Kilbourn, a New York gunsmith, attempted to raise the velocity of the Hornet by fire-forming the case to a sharper shoulder angle and nearly parallel sides to increase powder capacity. Velocity was increased noticeably with some bullet weights—particularly the lighter ones.

The 218 Bee created quite a stir when it hit the scene in 1938. Bee advocates claimed then that the Hornet was doomed, and controversy still exists over the relative merits of these two cartridges. Actually, there is little difference between them.

The 218 case is larger than the Hornet's, as it is a necked down 32-20. The extra powder does give the Bee more velocity, but it doesn't take it out of the 150-200 yard category. The Bee, like the Hornet, does its best work with lightweight bullets.

Several times over the years I've discussed the impact the Remington 222 had on varmint shooting; it created a new standard for accuracy. Thousands of reloaders began firing 222 rounds





**DUANE McClAIN** watches distant target with binoculars while **Don Lewis** gets ready to let off a shot from his 22-250 Remington.

from homemade benchrests and everyone suddenly became accuracy oriented. Shooting small groups became the rage among the varmint hunting fraternity, and cutting a 5-shot one-holer was the ultimate goal. Sometime in late 1950, I made a 5-shot group that would hide under the head of a 30-40 case (well under  $\frac{1}{2}$  inch, center to center). At the time it was the best I had ever shot, and I tacked the target in a very conspicuous place in my reloading shop. I made thousands of trips to that target over the years, until it finally disintegrated from the hundreds of fingertips that had been gently run around the opening.

### One of the Finest

The Remington 222 needs no detailed coverage here. It is one of the finest smallbore high velocity cartridges ever created. Strange as it may seem, the 222 is not based on any other cartridge; it was designed from scratch. It has shown its worth not only in the varmint field but also on the competitive line. This versatility means the 222 Remington will be around for years to come.

With the 22 Cheetah now making waves in the shooting realm, a renewed interest in wildcatting is sweeping through the ranks of shooting enthusiasts. In fact, with the introduction of Remington's B-R (benchrest) case, we're bound to see quite a number of new creations outside the factory circles.

Remington's B-R case is just a 308 case with a small primer pocket. Accuracy buffs have learned that a short, fat case with a relatively sharp neck angle controls powder combustion better than a long, narrow case with a sloping neck angle. The 308 case meets these criteria, and the smaller primer pocket results in a longer burning time.

I'm not suggesting that the only way to get an accurate varmint rifle is to build a custom wildcat. The Remington 22-250 was a winning wildcat on the competition line for 30 years before the general varmint world learned of its accuracy potential. With so many excellent varmint cartridges available from the factory today, it may seem odd to suggest that wildcatting may be fashionable again.

The truth is that many of today's



commercial high velocity varmint cartridges were developed by wildcatters working in garages, basements and attics. The list of wildcat cartridges is too long to mention here, but a few that came to life and died within a few years are of noteworthy interest.

Let's take a quick look at the 236 Gipson. It was made from the 220 Swift case necked up to take the 244 bullet. Fire-forming the cartridge produced a sharper neck angle. Velocity ran over 4000 fps with a full load behind a 60-grain bullet. At one time this cartridge was supposed to be entered in a benchrest shoot at DuBois, but the lack of good 244 bullets apparently kept it off the line. The cartridge must have shown a high accuracy potential, however, to be considered adequate for benchrest competition.

C.S. Landis designed the 170-250-4500 based on the 250-3000 case. This 17-caliber cartridge with a maximum load of 3031 powder could send a 25-grain Sisk bullet out of the muzzle at over 4900 fps. Unfortunately, I have no information on the accuracy level of this speedster.

During the late 1940s and early '50s, wildcatting was in high gear, and velocity was the primary goal. Hence the use of lightweight bullets such as the 20- to 25-grain 17 calibers. I have to point out that benchrest accuracy and varmint hunting accuracy are far apart. Benchrest shooters of that time were more interested in accuracy. They strived to get below the magic "minute-of-angle" (approximately one inch at 100 yards) mark. Ultra velocity was not the goal of the benchrest cartridge buffs.

### 3-Inch Target

A woodchuck offers at least a 3-inch diameter target from almost any angle, and it's a lot easier to hit a 3-inch target than it is to keep 5 or 10 shots under one-half inch at 100 yards.

The accuracy potential of any benchrest outfit will not be reached with mediocre bullets. One of the drawbacks in the early days of wildcat-



ting was the unbalanced bullet. The situation has improved greatly in this area. Even today's hunting bullets are vastly superior to those used for target competition in the gaslight era. Most top quality benchrest bullets are manufactured by custom makers, but bullet swaging tools are available for anybody interested in making his own. However, precision swaging dies from custom die makers are not inexpensive. With high quality factory match bullets available today, the average varmint hunter has no real need for jacketed bullet swaging equipment.

### No Secrets

As a dedicated varmint hunter, I have always felt a real debt of gratitude to the early benchrest crowd. I'm told they never really agreed on anything related to ballistics, but, on the other hand, they kept no secrets. Sharing their knowledge over the years not only produced better scores, but also enhanced the success of the varmint hunter. The benchrester's insatiable quest for accuracy is a major reason you and I can buy factory outfits that will put 5 shots in a dime at 100 yards.

We have come a long way since the days of the Civil War snipers. At the turn of the century, improvements in rifle making really started the accuracy wheels turning. World Wars I and II further improved both barrel and bullet making. I'm sure the ultimate in accuracy has not yet been reached, but in the varmint rifle line, we're getting top-notch results from today's speedsters.

# *In the wind*

bob mitchell



Efforts to reestablish peregrine falcons along the coast of Virginia have been so successful that officials now are going to concentrate their efforts in the mountainous portions of the state. A total of 126 birds have been hacked from nine coastal sites over the years. In 1985, though, previously hacked birds returned as adults and occupied the towers at every site. Two pairs nested successfully and produced a total of seven young.

An effort is underway in Arkansas to establish a 1/8 percent sales tax to support wildlife conservation there. A coalition of 23 organizations is currently trying to gather the 160,000 signatures required to have the initiative placed on the state's ballot this November. It's been estimated that the tax would cost \$5 to \$10 per person, and would generate more than \$16 million a year.

**Officers of the Arkansas Game and Fish Commission attained a 96.7 percent conviction rate in 1985. The 5556 convictions, stemming from 5747 cases, resulted in fines totaling \$395,309. Of those convicted, 16 served jail sentences.**

A record \$79,000 was offered recently for a bighorn sheep permit in Montana. The permit was auctioned off by the Foundation for North American Wild Sheep, and the money will be used specifically for bighorn sheep management. This is the first such permit auctioned off for the state, and the bid surpasses the previous record for an auctioned sheep permit, \$67,500, paid in 1983 for a Nevada desert bighorn hunt.

As reported in the *Missouri Conservationist*, a monarch butterfly was tagged in Ann Arbor Michigan in late August, 1985, and was trapped 25 days later in St. Joseph, Missouri. The butterfly, which no doubt was on its way to the species' wintering area in central Mexico, averaged 25 miles a day between the two captures.

In 1983 the New Jersey Audubon Society began sponsoring an annual birdathon in which teams solicit pledges and then compete to see which can locate the most species in 24 hours. A team including the renowned Roger Tory Peterson located 201 different kinds of birds that first year, which placed the Garden State in the same league as Alabama, Texas, and California as the only states in which over 200 kinds of birds have been observed in a single day—and teams in the latter two states used aircraft to attain this level. Although the 200-mark hasn't been broken in New Jersey since, in 1985, 23 teams participated and over \$40,000 was raised for the state Audubon chapter's conservation projects.

**On May 1, it became illegal in New York to sell any live wild bird unless it was born in captivity. With the enactment of this legislation—passed in 1984—the Empire State became the first to extend legal protection to all wild birds regardless of where they naturally occur.**

Natural resource conservation has been given a boost in Minnesota with the enactment of an easement program financed from the sale of \$16 million in bonds. Essentially, in return for taking marginal or highly erodible lands out of crop production and establishing permanent grass or tree cover, qualifying landowners will be paid \$75 per acre. In addition, for placing lands in perpetual easements, these owners will receive 70 percent of the average fair market value of their properties; for 10-year easements, 90 percent of the average local payments made under the federal conservation reserve program will be made. The same legislation authorizes the state's Department of Natural Resources to acquire land for wildlife habitat, and also allows the interest on the state's nongame checkoff account to be credited to the nongame program, not the general state treasury.





*The Wingless Crow*, by Chuck Fergus, is a collection of thirty-three Thornapples columns which have appeared in **GAME NEWS**. The nearly 200 pages of entertaining reading will appeal to Fergus fans as they reread these selected essays as well as to those who've yet to discover the joys of Thornapples. This top quality hardcover book costs \$10, delivered, and can be ordered from the Pennsylvania Game Commission, Dept AR, P.O. Box 1567, Harrisburg, PA 17105-1567.



## Outdoor Recreation Maps

To help outdoorsmen discover more of what Pennsylvania has to offer, the Game Commission has produced six "Outdoor Recreation Maps." Each multi-color 24 x 36-inch map covers one of the Commission's field regions. Highlighted are Game Lands, State Forests and Parks, and private lands enrolled in the Commission's public access programs. Also depicted are municipalities, roads, waterways, and — giving the map a three-dimensional appearance — 100-foot contour lines. Maps are printed on Tyvek, a tear-resistant, water-repellent material which will withstand years of hard use. Each regional map costs \$4 delivered, and can be ordered from the Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567. If you are not sure of which maps you want, write for a PGC map order form.



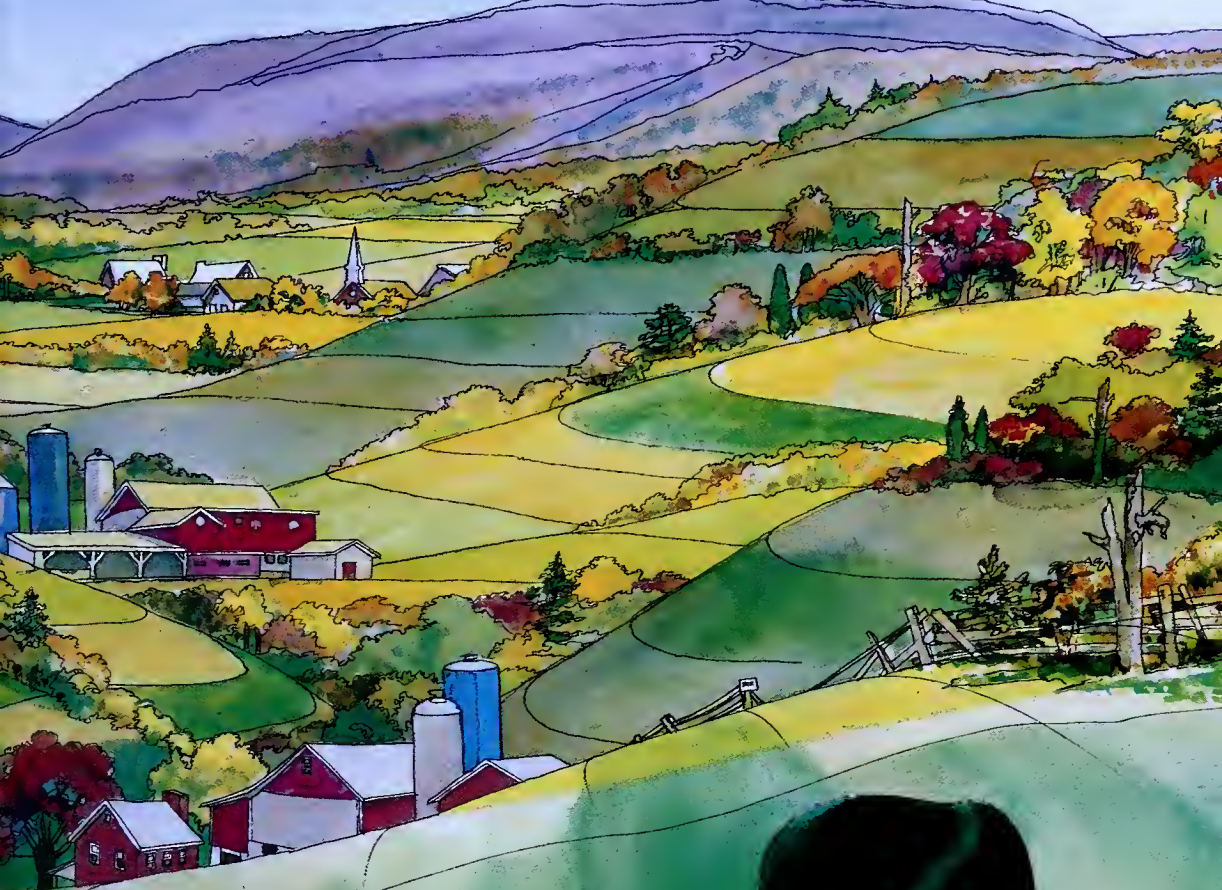
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SEPTEMBER, 1986

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*Country Lane Kestrel*, by Bob Sopheick, is the fourth limited edition fine art print – and the first selected from a contest open to Pennsylvania wildlife artists – available through the Working Together for Wildlife program. As with the previous editions, *Country Lane Kestrel* is limited to 600 signed and numbered prints. Image size is approximately 15 x 22½ inches, printed on acid-free 100 percent rag paper. Price is \$125; framed prints are an additional \$97.50. Requests for specific numbers will be satisfied on a first-come first-served basis. Orders should be sent to the Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567.



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**COVER PAINTING BY FRANK FRETZ**  
(Cover Story on page 2)

## Hats Off to Farm-Game

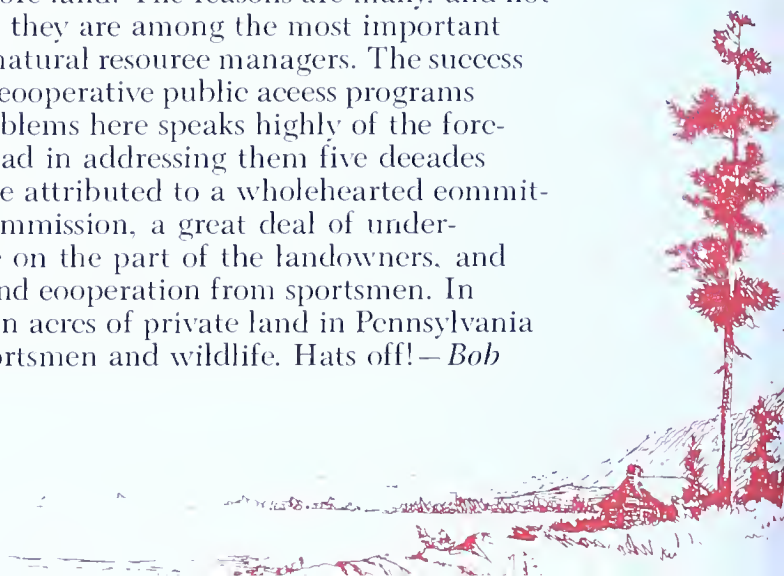
**1986** marks the golden anniversary of the Pennsylvania Game Commission's Farm-Game Program. For 50 years the agency has been working with landowners to provide hunter access and wildlife habitat on private land. This program began in 1936 with the establishment of a 1500-acre project encompassing ten farms in Chester County. Today, nearly 2.4 million acres are open to sportsmen and are being managed—in various degrees—for wildlife, thanks to 20,242 cooperating landowners.

Furthermore, from the Farm-Game Program the Safety Zone and Forest-Game Programs evolved. These two are based on the same basic concepts and account for over 2 million more acres for sportsmen to enjoy.

In exchange for agreeing to permit hunting and, in most cases, trapping on their properties, landowners receive a variety of services and considerations from the agency. Signs to direct hunter activities are given every participant. Game protectors and deputies regularly patrol these private lands. Trees, shrubs and related materials and assistance are offered cooperators to help them develop wildlife habitat and soil conservation practices. And, as a token gesture of good will, every cooperator receives a GAME NEWS subscription.

As the three hats on Frank Fretz's cover painting portray, these programs involve not just the Game Commission and landowners, but hunters and trappers, too. And it's the SPORT hat that symbolizes perhaps the most important component in this arrangement—the sportsmen's responsibilities. A hunting or furtaking license does not give the holder an undeniable right to run at will over cooperators' properties. Instead, every sportsman should personally ask permission from those landowners on whose properties he wishes to hunt or trap. Also, it's imperative that users conduct themselves in such a manner that they—and other visitors—will be welcomed back. The Game Commission, through these public access programs, takes the initiative in opening private lands, but it's ultimately up to the users to keep them open.

Throughout the country, with each passing year, sportsmen and wildlife are being excluded from more land. The reasons are many, and not necessarily related, but they are among the most important issues presently facing natural resource managers. The success of Pennsylvania's three cooperative public access programs in alleviating these problems here speaks highly of the foresight agency officials had in addressing them five decades ago. This success can be attributed to a wholehearted commitment by the Game Commission, a great deal of understanding and tolerance on the part of the landowners, and to the strong support and cooperation from sportsmen. In 50 years over 4.5 million acres of private land in Pennsylvania has been opened to sportsmen and wildlife. Hats off!—*Bob Mitchell*





Food for wildlife and a popular ingredient  
in autumn bouquets . . .

# American Bittersweet

by Alice M. Rice

**A**ERICAN BITTERSWEET, *Celastrus scandens* L., is a woody vine that grows throughout Pennsylvania, but here in Warren County the housewife who likes it for its decorative qualities has a difficult time finding any to gather. Although in the urbanized southeastern part of the state, thickly tangled bittersweet growth can be found holding highway and stream banks, climbing fencerows and railroad beds, and edging woodsy areas, here in rural, forested northwestern counties it is rarely seen by most people. In fact, many folks purchase theirs from the Seneca Indians who sell it on the street corners in the town of Warren each fall. The fistfuls of short-stemmed berried clusters, minus vines and leaves, are picked on the Allegany Reservation in New York State, just up river from Warren.

Curiosity prompted my conversation with the Indians. I hoped to learn the reason for the local scarcity of this beautiful wild vine. A young Indian explained that bittersweet will not grow where laurel and rhododendron abound. There is logic in his statement; bittersweet likes neutral soil and full sun, while laurel and rhododendron, of which we have an abundance, prefer acid soil and a mixture of sun and shade. We do have, though, other land suitable to the growth of bittersweet. My theory is that since the vine grows in the open or along forest edges where

deer browse it heavily, and since our county and neighboring counties have had relatively high deer populations, our bittersweet is being too closely cropped from its limited habitat by hungry wildlife.

Land use has changed, too. Fencerows are going the way of most small farms — out of existence. Small fields are being joined to make bigger ones which are able to accommodate larger equipment. Railroad beds, once kept clear of large trees and brush, have been abandoned, reducing bittersweet habitat. Many stream banks have been tamed with mowers and pruners into lawns around riverside homes and cottages. But some bittersweet can still be found by those who are familiar with the way it grows.

**BITTERSWEET** provides both food and shelter for wildlife, especially the smaller species, though deer eat both the vines and leaves. Besides being attractive, it is also useful in erosion control.

SEPTEMBER 1986





**BITTERSWEET BLOSSOMS AND FRUIT**, in circles, as they appear in spring, summer and fall. Bittersweet is often believed to be a parasite, because of the way it grows, but that is not true.

The bittersweet fruit is readily recognized by many people — particularly when it makes up part of an autumn arrangement — but its blossoms are not so familiar. Clusters of tiny inconspicuous yellow-green flowers appear in May or June. The dainty star-shaped blooms have five petals. Stamens and pistils are normally found in separate blossoms, but both usually occur on the same plant. Pollination takes place with the help of ants, bees and the wind, resulting in clusters of dull-orange fruit in October. Later, these open to reveal fleshy, brilliant scarlet-color berries, each containing four to eight seeds. The light orange hulls then curl upward around the stems, framing the bright berries with yet a lighter shade of orange.

Like the blossoms, the bittersweet vines are not as easily recognized as are their decorative stems. The vines are round and smooth, and have pointed wedge-shape leaves that tend to be a bit wavy along the edges. Bittersweet vines are often found growing in the company of staghorn sumac, which makes

good supports, but they also wrap around poles, large trees and even each other, becoming tightly intertwined. In fact, they have been known to wind themselves so tightly around the trunk of a sumac that the tree dies. Because of this, bittersweet has been incorrectly branded as a parasite; however, it obtains all its sustenance from the soil and not from supportive props. Bittersweet, in the open, twines around low vegetation and along the ground, creating nearly impenetrable thickets which make good cover for small animals.

Finding bittersweet in the wild is easiest in the fall. Limp yellow leaves remain attached to the vines after most trees have shed their leaves for the winter. From a distance, the leaves can be spotted as they circle upward around trunks and branches, reaching for the sunlight. Depending on the lateness of the season, the berries might be open and red or still covered in their orange outer shells. And, as previously mentioned the best places to look are along country roads, railroad rights-of-way, stream banks, fencerows and at the



edges of wood lots.

As shelter and food for wildlife and as a favored material for flower arrangements, bittersweet is worthy of an assist from all of us in parts of the state where it is scarce. Not only can it be planted for erosion control, but it also entices songbirds to its tangled feeding station. The fruit is also relished by many small animals, while cottontails hide underneath to nibble its tender twigs. Of course, deer find both the vines and leaves palatable.

Plants can be propagated from the wild by the layering method and from root or stem cuttings. Bittersweet can also be started from seeds, but because the seeds have dormant embryos, they should be planted in the fall, or cold-treated for planting in the spring. My attempts at layering have not been successful. Instead of further experimentation, I chose to order plants from a nursery to begin a bittersweet-sumac

thicket that I hope will invite wildlife to our backyard. Ordering more than one vine is suggested to ensure cross pollination. For interest and color, I also purchased two vines of the Chinese variety: these bloom more profusely than our native plants.

Although the Indians will probably make bittersweet available as long as they have customers, it is rewarding to locate some growing vines, if only to watch them bloom and mature. Of course, permission from the landowner should be obtained before cutting bittersweet or any other plant material. If gathering is allowed, take only a few stems, including a long twisted portion of the vine and a few leaves to add a more natural character to your arrangement. And, for the sake of the wildlife we all want to see well fed, it is prudent to plant some seeds in a spot suitable to both the plant and wild creatures.

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## Report a Poacher

**T**HROUGH SPORT—Sportsmen Policing Our Ranks Together—outdoorsmen are encouraged to take an active stand against Game Law violators. Since this program began ten years ago, many flagrant violators have been brought to justice because SPORTsmen lent a helping hand. In some instances, however, similar attempts were unsuccessful because concerned citizens had no idea what information our law enforcement officers need. The following guidelines are designed to help those who witness a violation get as many pertinent details as possible:

1. Specify the suspected violation.
2. Give date, time and precise location of violation.
3. If known, give suspect's name, address and telephone number. Describe suspect as completely as possible—height, weight, hair color, eye color, clothing, scars, and any other distinguishing details.
4. Describe suspect's vehicle: make,

model, color, license number, and any other recognizable features.

5. Identify wildlife species involved. If known, tell how many animals or birds were involved, where they were taken, and where they are now.

6. Note physical evidence—hides, entrails, firearms, cartridge cases, etc.

7. Names and addresses of other witnesses.

Don't delay. Upon witnessing a violation, immediately record as many of these details as possible. The more information you can provide, the more likely the violator will be apprehended and prosecuted. Forward this information to the nearest Game Commission office or officer. A summary of the above list, and the names, addresses and phone numbers of all district game protectors are in the Hunting and Trapping Digest issued with each hunting license.

—Gary Packard, GCO







# *Musings of a Grouse Hunter*

By Al Shimmel

**WE** HAVE BEEN told that buried in our subconscious mind are vague memories of the experiences of our ancestors. In what other way can we explain the fascination and satisfaction we find sitting before an open fire with a dog at our feet? Does it not explain the supreme contentment that is ours, especially if it marks the end of a day afield?

Hickory logs burn with a steady flame. The subtle odor of woodsmoke mingles with the fragrance of pitch pine. Splinters of this knot wood need only the application of a match to ignite the logs. Lounging in my easy chair, I stretch moccasined feet toward the fire. Britt sprawls on the hearth rug, pressing as close to my feet as she can. We are both comfortably tired. Today she found seven grouse but only one held long enough for a shot. That bird, a cock, elected to tower above the tangle of grapevines. At the peak of his climb he met a load of 7½s. Britt was there almost as soon as he grounded, her stump tail an excited blur of motion. In her first year under the gun, she was all enthusiasm.

We sat together at the base of a great oak and smoothed his barely ruffled feathers, marveling at the intricate pattern of gray, brown and black that made him almost invisible on the fallen leaves. One was enough, so we relaxed a few minutes and then followed the woods road that led down the ridge toward home. . . .

Through half-closed eyes I watch the flames, remembering the remarks of my small grandson, now man grown. We were sitting before the fireplace in the cabin on the lake. After watching

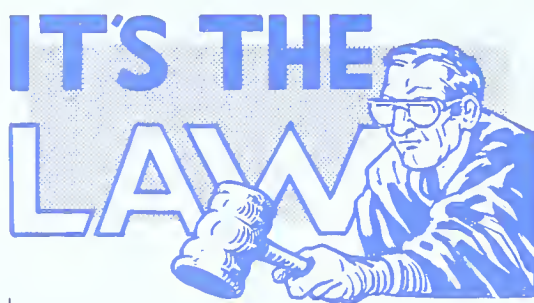
for a long time the flames that fluttered above the backlog, he said, "They're like birds sitting on a wire."

My brother and I were in our late teens when we chanced upon an unusual method of taking grouse. The hunt depended on the weather cooperating. We needed one of those dull autumn days when light rain sent grouse to cover. Behind the hill meandered a small spring fed brook. Above the brook was a dense crabapple thicket where grapevines matted their tops. These vines always bore an abundance of fruit. Grapes always clung to the vines well into winter. It was, in short, a good place for grouse.

During these light fall rains, grouse sought cover in the pines, roosting either among the branches or at the base of the trees, but always close to the trunk. My brother and I hunted through the pines with our 22 rifles. It was a slow but exacting and exciting sport. Our rules were simple: head shots only. Grouse were plentiful and the limit was five birds. If we succeeded in bagging more than a bird each, we considered the hunt a success. To those who consider this method unsporting, I suggest giving it a try.

## **Towering Birds**

Several times during my years of following Ol' Ruff, I have witnessed towering birds. One in particular ascended vertically for at least a hundred feet, then fell almost at my feet. In another instance the vertical flight was interrupted by the branches of a tall pine. This bird hung for a second before it fell. In both instances, examination showed a single shot pellet had pierced the brain.



### Question

If I want to drive deer for a friend, must I have a muzzleloading stamp during muzzleloading season even though I'm not carrying a gun?

### Answer

Even without a gun, driving deer is chasing or pursuing and is considered hunting. A muzzleloading stamp is required in addition to the regular hunting license.

We live at the very edge of a dividing line between two color phases of grouse. In the Moshannon swamps and the birch woods of the Quehanna, the gray phase is found. These are known locally as Birch Grouse or Gray Tails. I have been told that the farther north you hunt, the more predominant this coloration becomes. Within our central and southern counties, the brown phase predominates. Occasionally, I have found a variation of the brown phase. In my collection are two tails where the black band is replaced by one of chocolate and the neck ruffs are also of that color. I have found these birds to be larger and heavier than those of normal coloration. The two tails in my collection measure a full 14 inches across, while the normal black bands are about 12.

I once observed a strutting male that was so bright as to appear almost cherry red. I have seen only one such colored bird in almost 70 years of observation. One of the western subspecies is pictured in the book *The Ruffed Grouse*, published by the New York Conservation Department in

1947. This book is now a collector's item.

Ol' Ruff has been a resident of North America for over 25,000 years. In our area its remains from the Frankstown Cave excavations were identified by Alexander Wetmore, a naturalist of considerable prestige.

Occasionally, grouse are found in concentrations that seem contrary to the norm. My first experience with unusual numbers occurred when I was too young to hunt with a gun. I was often asked to go with two other hunters who were somewhat older than I. I was invited because even then I had found grouse interesting and knew where they could be found. These older hunters used my knowledge to their own ends, although at that time I was not aware of this fact.

One day they found some birds, but when their spaniel ran afoul of a skunk we ended the hunt quickly. I left the pair and took the path over the hill home. It led me past a field which only that year had been broken to the plow. As was the custom, it had been planted in buckwheat which was now ripe. As I skirted the field I was startled by a roar of wings. For a few seconds the air was full of grouse. They flew only a short distance and landed in a dead tree. I counted an even dozen birds. For a few minutes I stood and watched, then one by one the birds returned to their feeding. Farther along I flushed four other birds, and I'm convinced more were hidden on the field.

### Sixteen Unusual

Sixteen grouse along the edge of a small field was unusual. The probable explanation was that the field was bordered on three sides by excellent grouse habitat. Evidently they were merely taking advantage of an abundant food supply.

Years later I witnessed another concentration. We were hunting cotton-tails from a camp at Dutch Hollow in the Mosquito Creek Area. Abandoned hill farms were fast returning to natural vegetation. There were aspen and



birch clumps on the lower elevations, while in the hill pastures decaying stumps were surrounded by sumac, wintergreen and clumps of clover. Late frosts had ruined the crop of scrub oak acorns and had frozen the wild grapes.

We followed the lane to one of the pastures and headed toward the nearest clump of sumac, in hope of finding a cottontail. Suddenly, three grouse flushed and streaked away toward the distant woods. So surprised were we that we stared in open-mouthed amazement. Grouse in the open — unthinkable!

### Three More

At the next clump of sumac, three more birds exploded, but this time we were ready. We each took a bird and then sat down to field-dress them. Their crops held a mixture of sumac seed and wintergreen, both leaves and berries. All the grouse from the surrounding covers seemed to be feeding in those old fields. Two more flushes and we had our limits of two birds each.

When we shared our findings with the others at camp, they began to hunt the fields systematically. By late afternoon the eight others from our party returned with eight birds and tales of an expenditure of ammunition that would delight the shell manufacturers. One hunter, a careful observer, estimated that well over 50 grouse had been flushed.

The next season we returned, hoping for a repeat performance. We were disappointed, finding only one bird although we hunted the same territory behind a brace of well trained setters.

Grouse sometimes exhibit behavior that is a strange contrast to their normally shy habits. One day a neighbor came running over to tell me that a big bird was in his spruce tree. I followed him with my camera ready. Before we reached the tree, I spotted a grouse. It was calmly walking through their rock garden, tame as most domestic fowl. At times it probably would have been easy to reach out and catch it. For

almost an hour we followed it, taking pictures and even attempting to make it take wing. Eventually it crossed the lane and entered the woods, still walking.

On another occasion I was following a wood path. Three inches of fresh snow had fallen, and although it was open season I was carrying a camera instead of my gun. A grouse flushed from beside a stone and flew a few yards, then alighted in a pine. I had only a 50mm lens with me, so advanced as slowly as possible, hoping to get a picture. When I was about 20 feet away, I snapped a picture, then moved closer. The grouse did not move except to turn its head in my direction.



**SEVERAL TIMES** during his years of grouse hunting, Shimmel witnessed towering birds. One ascended vertically for at least a hundred feet before falling almost at his feet.

Directly under the bird, I looked through the rangefinder and snapped again. The distance was 12 feet. It must be sick, I thought. Stepping aside, I clapped my hands. It looked down but made no attempt to fly. I clapped my hands sharply, but not until I actually clapped several times did it take wing. Apparently it was perfectly healthy.

In another instance I was photographing a grouse which had chosen an unusual drumming log. A tree which had been cut hung up on the stump. It was hollow, so another cut was made about a dozen feet from the first. A large branch reaching from the trunk to the ground provided a ramp by which the bird climbed to his elevated log. I set a burlap blind within a yard of the grouse's drumming position. For several mornings I settled in well before first light, before the grouse arrived. I took a number of pictures with an electronic flash, and was hoping for

**ONE BIRD is enough, so after taking it Shimmel relaxes a few minutes before following the woods road that leads down the ridge toward home.**



one in natural light, but he always left before there was sufficient light.

Three incidents highlighted my observations of this bird. Several mornings when the grouse began his morning routine, he was answered by a challenge from a turkey gobbler. There seemed to be a contest between them, but it always ended when I heard the turkey leave his roost.

### Combat

Once, another grouse invaded his territory. After exchanging challenges, the grouse I had been observing left his log and advanced toward the other. In the dim light of dawn I saw them meet in a combat that reminded me of a pair of bantam cocks. The skirmish lasted through three exchanges. It was terminated when the challenger retreated. The triumphant cock waited a few minutes, then strode back to his log. For a quarter-hour he drummed with enthusiasm, pausing for only a few seconds to strut, then cock his head and listen intently. Finally convinced that his rival had retreated, he settled on the log, fluffed his feathers and seemed to take his ease. In a short time he resumed his drumming, pausing to spread his fan and ruff to their fullest as he strutted the length of the log, resting between performances. Suddenly, he left the log and went back up the hill. I suspect his mate had been a spectator to the affair although I did not see her.

One morning the same grouse was sitting on the log when I arrived. Although I was using a flashlight to find my way he sat tight. Other grouse that I have flushed from their drumming stands did not come back for several mornings.

Still using my light, I entered the blind and set up my stool and camera. When all was ready, I looked out. He was still in position. Almost as if he had been awaiting my arrival, he began his performance.

For years I hunted grouse, but managed only an occasional kill. Then I met Charley. He was a friend of my



father, and for some reason took me under his care. He set about making me more skilful in the sport. He owned a pair of setters that were expert grouse dogs. Birds were plentiful and it was a poor morning when we did not find a dozen or more. With the daily limit of five it was easy for an expert to limit out. Charley hunted for the pleasure of working his dogs, and killed far less birds than many other hunters. He'd often say, "Three is enough for any man."

The noisy flush startled me. I reacted instinctively, firing in the general direction of the bird. Charley advised me to slow down but I couldn't follow his advice. I had the bad habit of shooting too fast. When he saw I could not control this habit, he tried to teach me to mount my gun then count to three before firing. I improved slightly but not enough to satisfy the veteran. Finally he asked for my gun, and made me turn away. He handed it back and told me not to open it. On the first flush I was rewarded with only the click of the hammer on an empty chamber. Three times I mounted my gun when birds got up. Twice I was rewarded by the hollow click. On the third rise the gun fired and to my surprise the bird fell. Each time we went hunting the lesson was repeated until Charley was satisfied I was following his instructions.

My seasons with Charley were all too few. We often rested at the middle of a hunt. The dogs curled up at his feet and a bird or two from the morning hunt were laid out on the autumn leaves. He smoothed their feathers and touched them with almost reverence . . . With his easy speech he related the hunts of other years.

In the dying flames of my fire I see Charley again. He's walking slowly in to a point, the polished walnut of his gun showing below the elbow of his old hunting coat. I hear the whir of a bird and see the gun mount smoothly,

almost deliberately, as if he savored every move. When the bird was retrieved he smoothed it and seemed reluctant to stow it away. He was one of the men to whom I owe much. Yes, I still occasionally find myself counting under my breath, although Charley has been gone for half a century and more.

The flames are almost gone. In their place are heaps of glowing coals. Through half-closed eyes I watch the few last flickering flames. There are others with whom I followed the thunder bird. May they find a few birds and other hills to hunt. A fire is for remembering.

### Hazy Images

Half dozing, hazy images form in my mind. Far back in the recesses of time, firelight glows on the walls of a cave. A man squats on a bed of boughs and pulls his fur robe close about his shoulders. He shivers, not so much from the cold as from the dark beyond. A heavy club is within easy reach of his hand. Beyond the light, twin eyes glow green as they reflect his fire.

On the other side of the fire crouches a wolfish dog. Its fangs show white. A growl, deep in his throat, speaks warning to the terrors of the night. In a crevice of the cave is stored the meat of this day's chase. Farther back in the shadows, a woman quiets the whimperings of a child. They do not move but search beyond the fire with restless eyes. The man throws fresh wood on the fire. As it catches, the glowing eyes retreat. The wolfdog rumbles threats, deep in his throat. . . .

I wake with a start. Britt too is dreaming. Ancient warnings rumble in her throat. I touch her with my foot. She wakes up. We walk to the patio door and look out. The Hunter's Moon is shining as it has for untold centuries. We step into the sharp night air. The day is done. The logs are turning to ashes. We are both happy.



**SOMEWHERE ALONG THE LINE**, every successful hunt revolves around the hunter's efficiency with a gun. Year-round gun handling and shooting make even the tough chances easy.

# The Ability to Shoot

**By George H. Block**

**W**hy do some hunters score consistently on whitetails, while others hunt for twenty years without venison chops for supper? In a recent article I said scouting was one of the two most important aids in getting that wall-hanger all hunters dream about. What is number two?

I'm amazed at how this important advice is so often overlooked. Hunting magazines stress the importance of knowing your deer. Experts describe habitat at length, movement patterns are charted and mapped, the psychology of the hunt is studied until one might think you need a master's degree to get a good buck. The importance of knowing feeding areas will be charted,

showing the types of food available in different seasons. Many hunters understand the digestive systems of the whitetail better than their own. Hunting during the rut has been the subject of many articles. Even persons living in states that don't allow hunting at this time study such articles. With all this writing about improving the chance of the hunter when pursuing the whitetail, one extremely important factor goes all but unnoticed: the ability to shoot.

Simply stated, the ability to shoot well is maybe the most important part of the deer hunt—and the one most often overlooked. Last antlerless season I was pushing for my nephew George.



Hunting conditions were ideal. Truthfully I can say there was more shooting that day than on any three days I can remember. By noon, well over 40 shots had been fired on the neighboring farm alone. I was really getting concerned about our local deer herd. My worries, though, were unfounded, for this opening day barrage accounted for a grand total of three deer. How in the world could any group of people shoot over 40 times to take only three deer? They must believe in the army's high-rate-of-fire theory. George, by contrast, got his doe with one shot, running, at about 50 yards. That's all it takes, folks, if the shooter knows his rifle.

Occasionally I help out at a sporting goods store in Canonsburg. I often have a chance to study the customers and their attitudes. The popularity of the 760 Remington is a good example of the rapid-fire syndrome. While this Remington pump action is an excellent rifle, most people buy it for the wrong reason. All that's on their minds is the speed with which they can get off a second, third and even fourth shot. Why, some go so far as to buy 10-shot magazines for them. After selling such a magazine recently, I asked the young purchaser where he intended to hunt. When he told me, I thanked him and thought how glad I was that opening day would find me miles away. In the same vein, the detachable magazine in itself is popular because the shooter can reload rapidly. I wonder what such a shooter would think if I told him I often go afield with a Ruger Number One single shot? No matter what the caliber, nothing replaces that one well-placed shot.

### Rapid Fire Syndrome

The rapid fire syndrome is probably the number one hindrance to good shooting, and all too many fall for it. Regardless of action, caliber or weight of rifle, it's usually the first shot that counts. In fact, I've often thought most shooters would be better off with a slower working rifle, for it would slow



**BLOCK** likes the versatility of the 3-9x variable scopes like this Redfield, even on the small light Model Seven Remington. In 243 caliber, it handles whitetails at all normal ranges.

the shooter down, making him think a little.

In many of the volumes written about deer rifles, the authors recommend a long range bolt action rifle for the West and a fast rifle for the East. Basically, I would agree with them, except where they say fast, I would mean "fast handling," not necessarily fast on repeat shots. This past season I was going around a piece of cover that was to be driven by my brother-in-law Jack. A huge buck broke out the side. Bounding. I only had about three bounds in which to get him. The rifle came up smoothly. As the butt hit my shoulder the Leupold's crosshairs were right there on his shoulder. The old Model 70 recoiled of its own free will, and my season was over right there. Just like that. That's what I mean by "fast handling."

The easiest way to become proficient in the field is so simple many tend to overlook it. Just shoot more. The person with good hunting instincts has the odds stacked in his favor, but beware the man who is a good hunter and knows how to shoot. Woodchuck hunters tend to be good shots. When one fires hundreds of shots through a centerfire rifle at small targets hundreds of yards away, he soon becomes

proficient with that outfit. While most varmint hunters own specialized equipment for their sport, shooting even heavy-barreled rifles makes one a better shot when carrying the sporter later. Breath and trigger control are learned while using any rifle, and are vitally important during deer season. I carry my varmint hunting a step further. Although I use a heavy-barreled rig with a high powered scope most of the time, I occasionally hunt ground-hogs with my deer outfit. After popping close to a hundred hogs with my 270 at long range, hitting a 175-pound whitetail is akin to whacking an elephant in the backside.

Some shooters have trouble finding game in their scopes, and this too is a solvable problem. Many times the answer lies in the equipment. An improperly mounted scope is a never ending cause of problems. If mounted too far forward, the shooter needs to crawl the stock. Too far back, he's pulling away

**GEORGE DANIELS, Block's nephew, has become a fine rifleman and deer hunter under the supervision of the Ol' Master. He has the equipment and the ability to handle most chances in Washington County's productive deer country.**



from the rifle. Another mistake, in my opinion, is the high see-thru mount. The shooter here thinks he's getting the best of both worlds, scope and iron sights. In reality he's creating a condition where neither can be used properly. The iron sights are used through a dark tunnel, and the scope is perched up in the air where only a stork could use it. That's a lot like a dog chasing its own tail. It creates the very condition the shooter is worried about. That is, not being able to find the game in the scope.

### Mount Low

The shooter should mount his scope low where he can support the rifle with shoulder, hands and cheek, and then learn to use it properly. In this case, no shots need be fired. *Just check and double-check to make sure the rifle is empty*, and practice snapping the rifle to the shoulder. Sight on flying birds, skittering chipmunks, etc. While in all circumstances the shooter is better off with a low power scope for running game, I have no trouble picking up small animals like rabbits in a 10x varmint scope. This is not through some uncanny ability I was born with, but was learned by years of practice. The best advice I can give anyone is to handle the rifle until every move with it is second nature.

A few years ago we had what is for us a bad deer season. I had taken my buck, but Eileen failed to get a shot. Doe season found us working for not only her deer but also a nephew's. The opener found us chasing for him. I won't say how many shots my nephew fired that day, but he did some shooting. The second day my wife decided to be a little more serious. As we made our way up a lane in early morning, I spotted three deer feeding at the far end of a long pasture. Jim refused to shoot because he felt they were too far, but Eileen decided they were within her range.

Calmly resting her rifle over the nearest support, she asked, "How far?" "About 350," I said.



My nephew just grinned and shook his head. He knew no woman could hit a deer that far away. In fact, he told me later he knew it was over 450 yards. Needless to say, when she shot the deer hit the ground. She had learned too over the years. She knew her 270 and where it hit at all reasonable ranges.

One rifle season I stood watching a friend who missed a buck four times in a wide open alfalfa field. The ranges varied from 50 to 100 yards. After every shot I would say "high" or "low," "left" or "right." He didn't even come close. After the episode he couldn't believe he had missed, but later admitted he hadn't fired his deer rifle for two years. It showed. Some people are lucky it isn't necessary to take a shooting examination to get a deer license. Last season Eileen shot her buck running across the same field while standing in the same spot. Range? About 250 yards.

I've stood with groups of shooters discussing calibers and their merits. One hunter was expounding the long range advantage of the 300 Weatherby Magnum. The 30-06, according to this fellow, is only for close range work, a has-been that belongs in the junk heap.

Now, I know this guy well enough to question his expertise, and couldn't resist asking him a question. "Where does your 300 Weatherby hit on a 400-yard shot?"

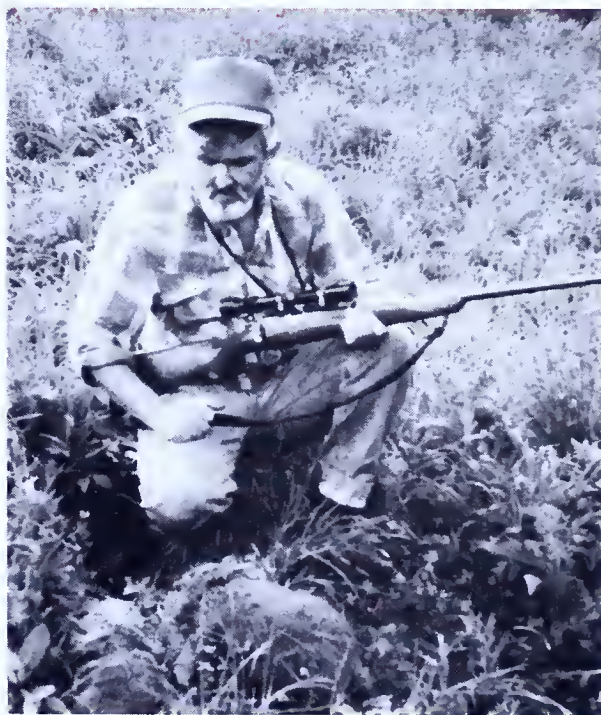
His answer reeked with indignity and his look scorned my ignorance. "Dead on," he said. "A 300 Weatherby has no drop at that range."

The sad thing is, he believed it. He honestly believed he had a rifle that defied gravity. I smiled a little, for I knew he sighted his rifle in behind his house at about 50 yards. There is just no sense in arguing with some people. No caliber, and I'll repeat *NO* caliber, is a long range one unless the shooter knows his rifle and has it sighted in properly. The 30-06 user who knows his rifle will make more consistent and longer kills than the hunter using a 300 Magnum that he shoots only once a year.

One day in antlerless season, the

noise of shooting coming from the thick gully to my right sounded like a war zone. From early morning into afternoon it went on in sporadic bursts. Finally, my curiosity got the best of me and I had to investigate. Finding the hunter was no trouble, as I knew the area well. There he sat, a blaze-orange canary up an oak tree. He needed a break from his perch, so clambered down, more than willing to outline the excitement of the day. I listened with amusement as he described a deer sneaking through on his right, and how he hurriedly missed four shots. The last had been thrown in the general direction of its last crunching sound. Another had been running, which used up three more rounds. A herd of six had been standing 40 yards away, and there went another four rounds. I had visions of some future prospector thinking he'd found a lead mine when checking that hillside. The ground under the tree shone with brass. Altogether he'd

**WOODCHUCK SNIPING** during the summer, especially with your big game rifle, is great preparation for whitetails in December—particularly long shots in fields or powerline rights-of-way.



missed fourteen shots and, as I left, he scampered back up the tree, hoping for the chance to use up his last six cartridges. Of course, he hadn't climbed out of the tree until my approach, which means he hadn't checked for blood. In private, I just shook my head, not able to force myself to check to see if he'd accidentally hit anything. Seeing deer wasn't that youngster's problem, but as with many others, hitting them was. Or maybe I should say, hitting them where they're supposed to be hit.

### Not a Science

Learning to hunt whitetails can be difficult. It is not an exact science. Some people have a natural ability to see deer easily, while others struggle. Acquiring the necessary patience is a task in itself. Feeding patterns of deer change with the seasons and areas. Some of us just spot deer better than others. I have a daughter who has never hunted but can see a deer in the heaviest cover long before others pick it out. Hunting techniques can be learned, though it is often a long, tough process.

Learning to shoot, on the other hand, is the easiest chore related to the hunt. It has substance, and improvement is easily seen. While it's hard to put your finger on what makes one a better locator of deer than another, and therefore correct the problem, shooting errors can be pinpointed. In fact, the weaker the hunter is on the ability to find deer, the better he'd better be on the shooting end. He just won't get as many shots, and so had better make every one count. I have often said, when not getting a shot or upon missing a deer, that it doesn't matter, there is always another one around the cor-

ner. But to the person who sees only one buck a year, he had better shoot straight. Very few persons are born shooters, and practice is the real key here.

Familiarity with the rifle comes with this practice, and can be attained without ever firing a shot. I'll repeat, when practicing this, you must always keep safety in mind. Check and re-check to be certain the rifle is empty. Practice bringing the rifle up smoothly and releasing the safety; this should become a natural action and the safety should never be fumbled for. Time spent getting to know your rifle in the off season will be of great benefit in field conditions.

You don't reload and can't afford much ammunition? With the cost of missing work and traveling to go hunting, that one is a weak argument. Shoot a 22 if you must. It teaches the basic shooting principles as well as anything. Try to put at least a couple of boxes of centerfire stuff through your deer rifle before the season. Build up confidence with it until you don't just hope you can hit a deer—you know you can hit one. Stay within your limitations when hunting. If you're a 50-yard shooter, don't attempt shots at 150.

Keep reminding yourself it's the first shot that counts. Forget that rapid-fire syndrome that leads only to misses, or worse yet to crippled deer. Ten-round magazines and rapid-fire infantry methods have no place in the deer woods. Avoid using them, and avoid anyone who does. If he has no respect for the wildlife he hunts, he probably has little respect for his fellow hunter. Practice at every opportunity, and then practice some more. Make one shot count this deer season and join the ranks of those who score consistently.

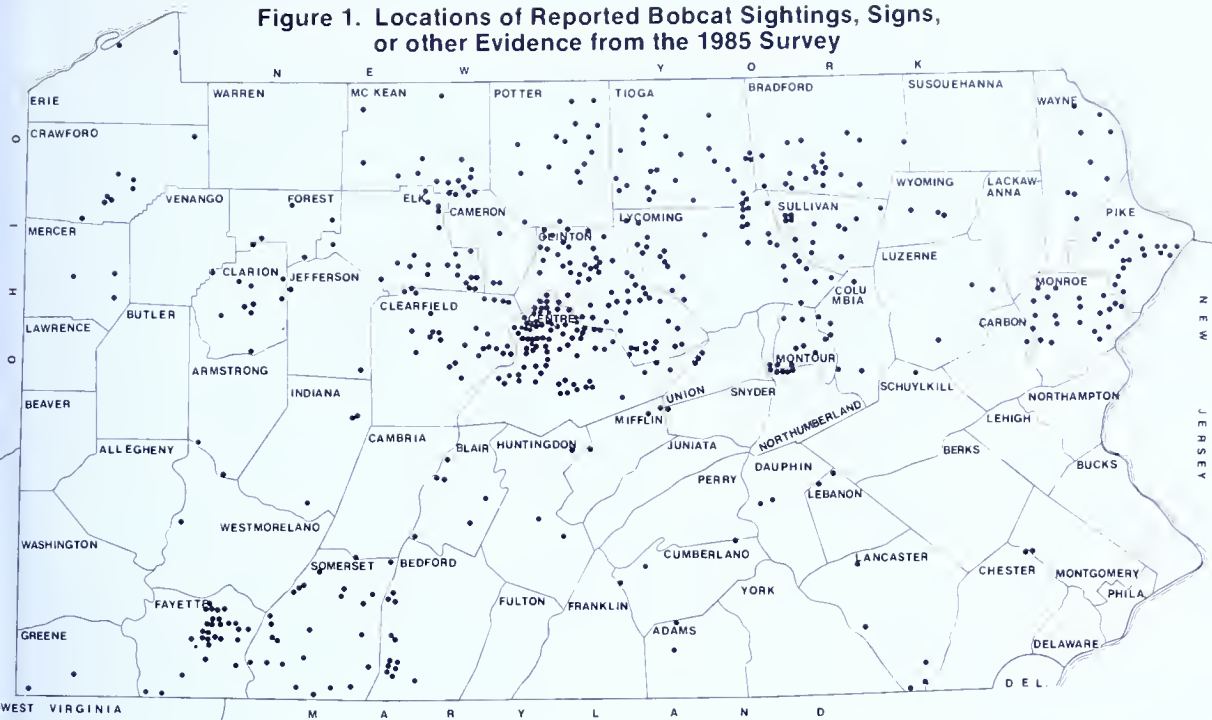
## Thoughts While Walking

*The painter should not paint what he sees, but what will be seen.*

—Paul Valéry



Figure 1. Locations of Reported Bobcat Sightings, Signs, or other Evidence from the 1985 Survey



# Pennsylvania Bobcat Roundup

By Jack Giles  
PGC Wildlife Biologist

**T**HE BOBCAT was 1985's featured species in the Game Commission's Working Together for Wildlife program. It was selected to further promote public awareness of this largely unknown predator and what we're doing to learn more about it.

At that time it was announced that a survey of district game protectors was going to be conducted to learn how many bobcats we have in the state and where they are living. This survey has been completed, and it appears bobcat numbers and range are both increasing.

In legal terms, the bobcat is classified as a game animal in Pennsylvania.

It was elevated to this category in 1970 because it was felt the population was declining. The game animal classification gives the Game Commission authority to set hunting and trapping seasons on an animal; or, as in the bobcat's case, to have no open season, which means they cannot be legally taken by any means. Prior to 1970, the animal had been in the unprotected category, which meant it could be taken at any time, and, from 1819 until 1937, bounty systems in place actually encouraged people to kill these animals.

Scientists refer to the bobcat as *Lynx rufus*. It is a member of the cat family, *Felidae*, which also includes the Can-

ada lynx, *Lynx canadensis*, and the cougar, *Felis concolor*—two animals which apparently no longer live in the state.

The survey was conducted in 1985. Officers estimated the bobcat populations in their districts. Each also indicated on a map where and what kind of bobcat evidence he was aware of in his district. They further defined this evidence according to nine predetermined categories: confirmed sightings, unconfirmed sightings, known litters, depredation on livestock or poultry, highway kills, tracks discovered in mud or snow, bobcats trapped accidentally and released, bobcats trapped accidentally and killed, and finally, those taken illegally.

### Evidence

For the purpose of this survey, evidence based on an officer's personal experience and from other sources he considered reliable was acceptable.

A total of 115 officers took part. One gave a district estimate of 0–5, another of 0–10, with no corroborating evidence. Because not even the presence of bobcats can be inferred from these two estimates, they were not included in the analysis. Three respondents did not give population estimates, but they did provide evidence of bobcats in their districts. Their information was used and district estimates were made accordingly. No response was received from one officer, so an estimate was assigned to his district based on those submitted from two adjoining districts. It was believed necessary to do so because this district contains some of the best bobcat range in the state and, therefore, could not be ignored.

Bobcat evidence was reported from 47 of Pennsylvania's 67 counties. Of this evidence, 59 percent was confirmed sightings, 24 percent was unconfirmed sightings (based on reports by others). The remaining 17 percent was in the other seven categories.

Sixty-six of the officers queried, (57 percent) believed bobcats lived in their districts. Population estimates ranged

**TABLE 1**  
**Bobcat Densities**  
**by Game Commission Region**

Region	Area (Mi <sup>2</sup> )	Est. Bobcats	Relative Density
Northwest	6926	45	1 per 154 Mi <sup>2</sup>
Southwest	7704	257	1 per 30 Mi <sup>2</sup>
Northcentral	9143	1463	1 per 6 Mi <sup>2</sup>
Southcentral	6410	119	1 per 54 Mi <sup>2</sup>
Northeast	7575	376	1 per 20 Mi <sup>2</sup>
Southeast	7285	36	1 per 202 Mi <sup>2</sup>
Statewide	45043	2296	1 per 20 Mi <sup>2</sup>

from a low of 2 to a high of 500. Bobcat densities in the six Game Commission regions (Table 1), calculated from these estimates, ranged from one per 202 square miles in the Southeast to one per 6 square miles in the Northcentral. Totaling the district estimates gave a statewide estimate of 2296 bobcats, or one for about every 20 square miles. These densities do not take into account preferred habitats, topography or other factors that influence bobcat distributions on a local level.

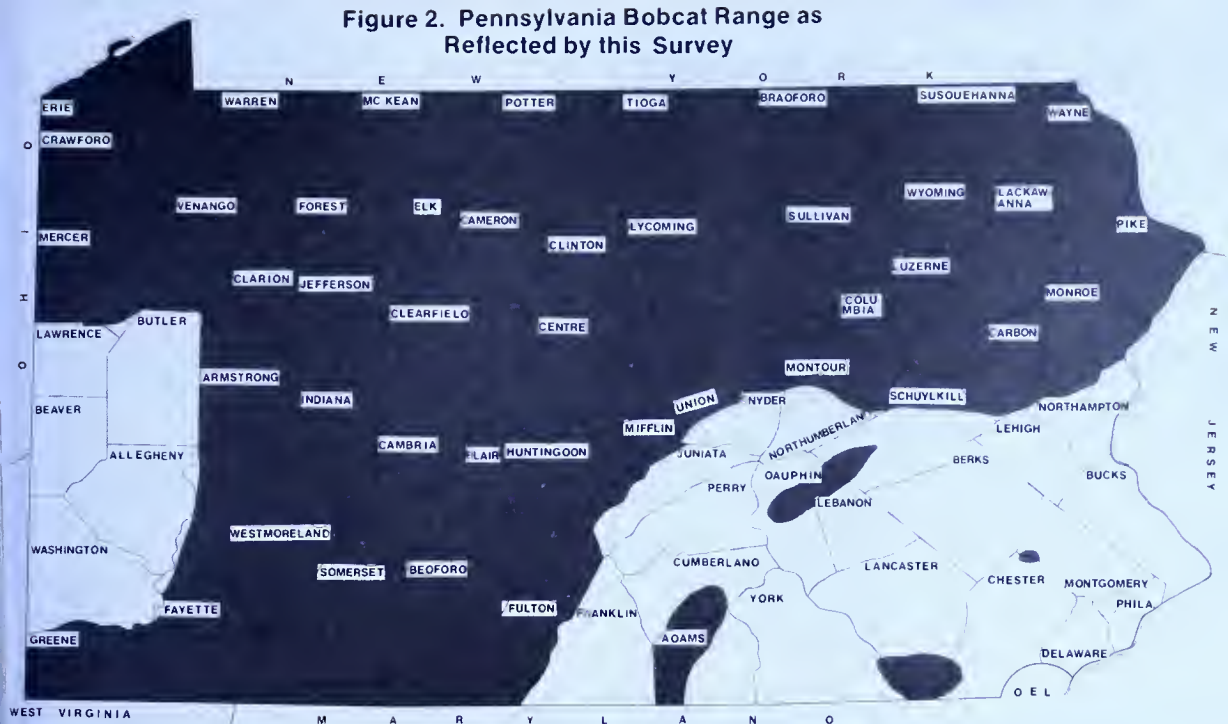
For comparison, studies in other areas of the country have found densities such as one bobcat per 7 square miles in Idaho, 1 per 1.5 square miles in Arizona, 1 per 2.7 to 3.9 square miles in southcentral Florida, and 1 per 4.5 square miles over 43 counties in Virginia. The first three densities were determined from clearly defined study areas; the last was calculated from bounty records.

Statewide distribution of reported evidence can be seen in Figure 1. Each dot represents a single piece of data within the nine categories. The range map, Figure 2, was derived by combining the evidence data and the district estimates. This can be considered the approximate bobcat distribution in the state.

Two other bobcat surveys have been conducted in Pennsylvania, one in 1970 and the other in 1979. Although we can't compare them in many respects, it is apparent how district game protec-



Figure 2. Pennsylvania Bobcat Range as Reflected by this Survey



tors' perceptions of bobcat numbers have changed during this time.

From the 1970 survey it was estimated that about 520 bobcats were living in Pennsylvania. The 1979 survey indicated approximately 700 in the state, and that they were found in all but 21 counties. Those with the highest estimated populations at that time were Clinton, Fayette, Lycoming and Sullivan.

Assuming these survey results are indicative of an actual trend in bobcat numbers, the next logical question is why are they increasing.

The legislative moves that have taken the animal from the bounty lists, which encouraged their killing, to the unprotected classification, and then to today's granting of total legal protection, come first to mind. Measuring the actual effects of these changes is difficult at best.

A less obvious but possibly more significant reason could be an increase in the habitat types bobcats thrive in. Bobcats are predators. They prey primarily upon small mammals, most notably shrews, mice, chipmunks, squir-

rels and rabbits. Except for squirrels, these prey species are most abundant in the early stages of forest succession.

For two primary reasons, clearcuts and stands of young forests are more prevalent than they were a couple of decades ago. Gypsy moth infestations — which have been occurring here since 1932 — reached outbreak proportions in the late 1970s and early '80s. Repeated defoliations by this insect caused significant tree mortalities in some areas, up to 60 percent in some cases.

### Many New Areas

This mortality, coupled with the salvage cutting of trees, opened up many new areas for bobcats. In addition, relatively high timber prices during this same period sparked an increase in timber cutting.

We can't say for certain, but it's reasonable to conclude that bobcat numbers have increased in response to the creation of more favorable habitat.

In most instances, nobody knows better than a district game protector what animals are thriving in his dis-



Leonard Lee Rue III

**THOUGH CLASSIFIED** as a game animal in Pennsylvania, there has been no open season on bobcats in many years, for either hunting or trapping.

trict. These individuals are the best sources for the kind of information needed for this survey. It must be remembered, however, that much of this information is based on opinions and hearsay evidence. It's safe to conclude that bobcats are living where our officers say they are. It's nearly as safe to conclude that those reporting larger numbers have more, or higher densities, than those reporting smaller numbers. It's also safe to say that bobcat numbers have increased over the past 15 years due to the elimination of hunting and trapping seasons, and because more bobcat habitat has been developed over this period. But many questions remain.

A modest research program to learn more about the state's only wild feline predator is being planned. We need to find out, for example, what the home

range of a bobcat is, what specific habitat types it does best in, and what other factors are influencing its abundance and distribution.

An attempt to trap and tag some animals will be the next step. This technique has been useful in other areas, but, because bobcats cannot be legally hunted or trapped here, the number we can realistically hope to recover after tagging is extremely low.

A study using radio telemetry equipment would provide much of this same information, but the procedures are expensive and time consuming.

Where we ultimately go in terms of bobcat research and management will be dictated by money and manpower—two commodities that are extremely limited at the present. But the bobcat will not be forgotten in Pennsylvania. Every year we are hearing more people say, "Guess what I saw the other day—a bobcat!"

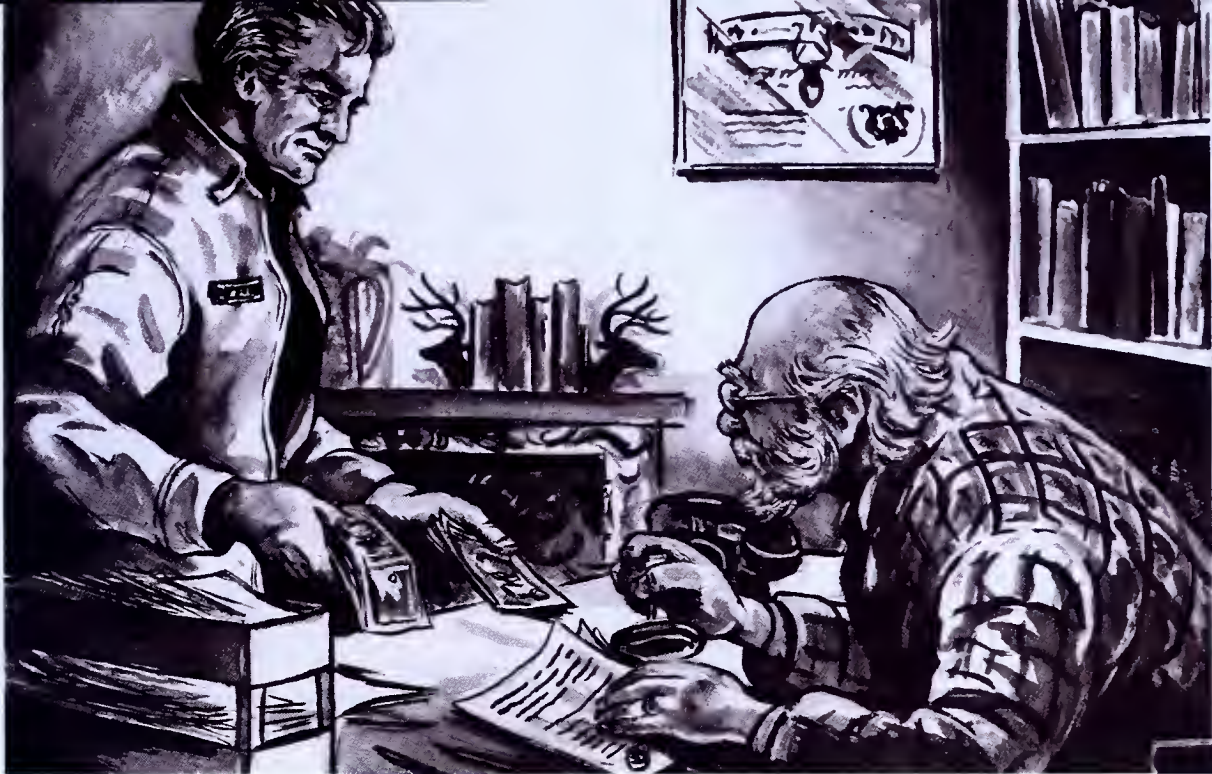
I wish to express my appreciation to all the participating district game protectors, without whose efforts this survey would not have been possible. JG

### Trappers, You Can Help

We'd like to tag as many bobcats as possible. If you happen to accidentally trap any bobcats during the upcoming seasons, and if it's at all feasible, contact your local district game protector. He may tag and release the cat, or make arrangements with a trained handler to do so.

Although it is illegal to deliberately attempt to capture or kill bobcats in Pennsylvania, it is not against the law to accidentally capture and release a bobcat while attempting to trap legal furbearers during the prescribed trapping seasons. Therefore, those who contact us about an accidentally trapped bobcat will not be in violation of any game laws.





HUNTING IN GERMANY is not a simple matter. Many hours of instruction, plus testing and proof of shooting skills are required before a license can be bought—and that's just the beginning . . .

# Oh, How I Miss Hunting in Pennsylvania

By Captain A. M. Vargenko

**I**T HAS BEEN four long years since I've hunted in my native Pennsylvania. I am an Army captain now stationed in Germany, and prior to that was posted to Fort Benning, Georgia. Although I was able to hunt deer and turkey there, the opportunities weren't close to those for the hunter back home. Like many sportsmen, I took hunting for granted. I didn't realize how fortunate I was until I no longer had the choices Pennsylvania offers.

If you ever get upset about an apparent lack of game, too much posted land, or you think the Game Commission isn't doing a very good job, I hope you will remember this article. You might appreciate what you have a little bit more.

I am going to try to hunt here in Germany. The first thing I must do—

even before I can buy a license—is attend thirty-six hours of instruction. The course includes a difficult written test and a demonstration of shooting skills with both rifle and shotgun. As a serviceman, I get a big advantage over a German citizen: he must attend a course that lasts almost eighteen months.

Once I pass my test I must pay for my basic license (\$30) and purchase hunter's insurance (\$15-\$30). I must also buy a German hunting hat (\$15-\$30) in gray, green or brown, and hunting clothes to match, including a tie. (Blue jeans, a good Woolrich coat and a cheap orange tassel cap just won't do.) Big game is allotted to servicemen on an annual quota, so one must apply for the big game lottery (\$50) which is nonrefundable. Then if I am lucky and

draw a big game tag, I must book the hunt through the Army's hunting and fishing office. A first-year hunter pays \$20 to book the hunt, while a veteran hunter in this system pays \$50. The office coordinator then finds a German hunting guide for the kind of animal I want to hunt and the guide contacts me by phone. I may have to drive from one to five hours to get where I am to hunt.

I intend to try to hunt chamois this year. A chamois is a member of the mountain goat family that lives in the Alps. The Alps are from four to five hours away from me, so add in the cost for gasoline (\$30). In Bavaria the guides get \$5 per hour and hunting for chamois is a sunup to sundown event. A hunt is usually booked for three to five days, so you must also fork out for meals and lodging (\$150). If I am lucky enough to shoot one, I must then pay a conservation fee to the German government for the taking of an animal that belongs to the Republic. This fee is \$100-\$200, depending on the scoring of the trophy by the guide. This fee entitles me to the trophy but not the meat. If I want the meat I must pay the same rate the local restaurants pay—up to \$3 per pound.

### Rights Controlled

There is quite a bit of game in Germany, but hunting rights are strictly controlled. The farmer owns the land but the Republic owns the game. Hunting rights sold each year cover plots of land called *das Revier*. A Revier owner pays a large fee for the right to hunt and is responsible to the farmer for damages caused by the game. The Revier owner also must do a big game inventory of his area in order to submit his *Abschussplan* (annual game shooting plan) to the government for approval. There is no such thing as State Game Lands over here. The closest thing to it is an Army field training area which only servicemen can hunt on, but they must be accompanied by a German guide.

There is a lot of small game near where I live, but it of course is on someone's Revier. They have pretty good numbers of *Fasan*, which are the same as our pheasant, huge rabbits called *Hase*, and regular bunnies called *Kaninchen*.

Big game consists of red deer stag called *Hirsch*, wild boar (*Schwarzwild*), fallow deer (*Damwild*), chamois (*Gamswild*), and roe deer (*Rehwild*). A red deer stag looks much like our elk and can weigh up to 275 pounds. Wild boar often travel in groups; individuals weigh up to 250 pounds. Fallow deer look like white-tails, but have antlers that resemble those on a caribou. Chamois are small goats that love steep rocky mountains; both male and female have horns. Roe deer weigh only 30-40 pounds and get a maximum of six points. Populations of these big game species are closely controlled.

Hunting is deep into tradition and ritual in Germany. For example, after killing a big game animal the hunter must pay his respects to the game by observing a long moment of silence over the animal. Then the hunter must give the game its last bite by putting an edible branch in its mouth. The game is always placed on its right side, and it is not permissible to step over the animal at any time, even when field-dressing. Most importantly, the hunter is a conservationist. He shoots only those animals which his guide feels do not carry the best breeding characteristics—the abnormal, sick or small animal that has small or unusual horns.

Women have a hard time hunting here. Only recently have they been permitted to hunt, and it is still frowned upon by most German hunters.

I hope I have made you appreciate a little more how lucky you are to be a hunter in Pennsylvania. I have to leave now for my second job so I can pay \$400-\$500 to shoot a chamois with only one horn and a bad case of mange.

*Weidmannsheil!*



# In Praise of Doves

By Jim Bashline

**A**MERICANS don't shoot game . . . they hunt it. Europeans go into the field to shoot, not hunt. So do South Americans. It's just a choice of words, mind you, but in the case of Pennsylvania dove pursuit, it ought to be called a shoot. Well, at least we shoot *at* them, with most of us not hitting far more than we hit.

The hunting part of this game takes place, or should take place, long before we are permitted to load the shotgun come the correct day in early September. Ideally, a flyway is located, either on a direct feeding or watering route or adjacent to a choice roosting location. There, if all goes well, the shooter stands or sits and waits for doves to fly within range and does his thing. He may do his thing in quantity and end up with a pile of empty hulls on the ground and a few doves to show for it. He may also finish the day with a limit of doves and a minimum number of spent shells. Or none of either. Dove shooting is like that. Unpredictable. There are no expert dove hunters or dove finders . . . though there are some expert dove shooters, a fact which I related once in GAME NEWS.

As proof of the difficulty of predicting where doves are going to be, any



Nick Sisley

**DOVES ARE TOUGH** targets, but there are so many of them that a shooter can usually bag enough for a good meal — and learn a lot about shotgunning in the bargain.

dove hunter with more than a half-dozen seasons under his shooting vest must admit that last year's hot spot frequently produces nothing this year. It can become even more perplexing when the hordes of doves that practically flew down the gun barrel yesterday afternoon have departed for parts unknown this evening. Vast flights of birds that came in to Farmer Smith's cattle pond all summer long may totally vanish on September 1. Or how about the "veritable plethora" (to quote Howard Cosell) of doves that insist on staying in a well marked Safety Zone, or hanging out in the village cemetery or shopping mall parking lot? Occasionally, though, the Red Gods do shine upon us and we have the chance to shoot at some of these wonderful little birds. No other flying creature in

the world can teach us so much about smoothbore capabilities and human shortcomings.

The ideal dove shoot screen play, as I see it, consists of a grassy field containing stubble no more than six inches high stretching for at least 50 acres in front of my position. On one end of this field, I'd like to see a small creek or pond connected to a half-mile lane covered with pea-size limestone gravel. On the other end of the field would be a strip of standing corn backed up with a stand of conifers, tall enough to offer nesting sites for a thousand pairs of birds. Where I am standing, I'd wish for a cluster of various bushes, just head high, to mask my silhouette. I'd also hope for another cluster about 20 yards away to hide my companion.

### Fellow Shooter

A fellow shooter is necessary for the perfect dove shoot. Good conversation is vital while waiting for the next flight to swing by. Your companion should either be a better shot than you are or much worse. This is important because if he is better than you are, you might learn something; if he is not as good, you can possibly help him. Shooters of equal skills can't teach each other

much of anything. On second thought, if the conversation is satisfactory, shooting abilities don't matter a lot.

When I began my dove shooting career, I devoutly read everything I could latch onto about the fine points of the activity. Camouflage clothing, I determined, was a must. I even went so far as to use a head shroud when it wasn't too hot, and camo face paint when it was. Some shooters have ruined perfectly good shotguns by painting them gray, green and brown or wrapping camo tape around everything . . . as the turkey hunters do. Like the old "lady kissing the cow" story, that's OK if you want to, but after 25 years of dove shooting I'm beginning to have heavy doubts about all this.

One season not long ago, a dove shoot was organized by my good pal Bob Clark, as a special outing for some of his outdoor writer friends. One of the shooters invited was Joe Reynolds, a Marylander, who obviously hadn't been reading much about doves. He showed up at the appointed hour wearing a blaze orange hat and the brightest pair of yellow hunting boots I've ever seen. Of course, all of the "experienced" dove hunters broke out in organized laughter and voted to place him

**WHEN DOVES COME IN TO WATER, the shooting can be fast and furious, and a good retriever such as Bashline's Lab is invaluable.**





in the most remote corner of our field. Everyone agreed that no dove, except possibly one suffering from some avian mental disorder, would come within a mile of Joe's shotgun . . . which, incidentally, had a highly polished silver receiver. Boy, what a klutz!

As early afternoon passed, with only an occasional shot being fired, comments drifted back and forth across the corn stumps about the "clown in the orange outfit" and "the guy in the Ronald McDonald boots." This was before the evening flight of birds began to trade locations. Clark had guessed right on the area, and as the sun dipped closer to the horizon groups of three to a half-dozen doves began to zip by from all directions. There was only one thing wrong. They were all, and I mean *all*, zipping directly over the spot where Joe Reynolds was standing. Oh, the rest of us got a few shots, but the birds were practically attacking Joe. He notched up a limit of twelve birds while the rest of us scarcely warmed our gun barrels. About the time he grassed his twelfth bird, all dove activity ceased and the sky became vacant. So much for camouflage.

### Other Questions

And how many times have we read and been otherwise advised about what size shot to shoot at doves, and . . . should the ammo be high or low brass and which gauge is ideal? These and other firearms questions can be discussed long into the night—and have been, with little of value coming out of it. I have seen crack shots knock a small trainload of doves with full choke 12-gauge trap guns. I also saw the late Roger Latham drop a limit of doves with a box of shells fired in his old side-by-side Fulton .410, both barrels choked modified. To further fuzz up the issue, not a few top dove shots do their best work with skeet-bored or IC guns in all gauges.

The most important variable seems to be how the birds are flying on any given day. Only the birds know how they will do this, and if we happen to

be armed right and swing well, pan fried dove breasts will be the result. When doves are soaring high over an open field, a full charge of 12-gauge high brass 6s will barely be enough. When pitching into a waterhole, where the shooter is parked behind an abandoned hay rake, a skeet load of 9s in a 28 gauge will be gun enough. Best advice? Use the gun you shoot best with the load that shoots best in it.

### Gun Fit

Regardless of the gun you choose for dove shooting, its fit to your arms, neck and cheek is more important than with any other type of shooting I can think of. Doves offer every imaginable angle and the great grouse gun may or may not work well on doves. Same with the deadly smokepole that you do so well with on passing mallards. Doves don't always fly in straight lines nor do they maintain a constant speed as they bore in on your position. They seem to be free spirits of the best (or worst) kind, and can change from coasting to high gear in one wingbeat. The sustained-lead shooter who sees a certain amount of daylight between bird and barrel can do well for a few shots and then be totally flummoxed for the next 17. Just as easily, the good snapshot who points where the bird is going to be and slaps the trigger can perform with style—or be sent home talking to himself. What to do?

For all of my game shooting during the past five years, I've tried to switch to the so-called British style of wing shooting. The British were shooting at driven birds before we could spell shotgun, and they have developed a highly pragmatic approach to shooting birds in the air. Instructors over there train wingshooters to *look hard* at the bird before moving the gun from a high port position. They want one to keep both eyes open, claiming the eyes and brain then adjust to the bird's speed and angle. Then the shooter brings the gun up quickly and smoothly, keeping both eyes on the target, and hits the trigger precisely at the moment the buttplate



George Dolnick

**MANY DOVE SHOOTERS** scrooch into the edge of standing corn for concealment, dropping the birds in the open strips for easy retrieval. Even here, it's a good idea not to shoot doubles unless you have a dog.

hits his shoulder. The bird should appear in line with the barrel (or barrels), and as the body is already swinging at the same speed the bird is flying, a hit should result. It works better than any other system I've tried.

To become proficient with this technique, it is of utmost importance that the stock fit well. Far too many dove shooters handicap themselves by becoming a slave to the gun they now own. Of course, if it's a family heirloom it might be difficult to swap off or whittle on. But for an over the counter gun, shortening, lengthening, adding a cheekpiece, raising the comb or whatever ought to be considered. If the gun

is a high quality one wearing a fancy piece of walnut, the work should be done by a competent stock craftsman. But many old doubles and autoloaders can be turned into good dove guns by playing with a comb-changing kit (Meadow Industries, P.O. Box 450, Marlton, NJ 08053). This little company makes a neat vinyl pad which attaches to the stock via Velcro strips. A variety of narrow shims fit beneath the pad to raise the comb in small increments. I've fixed a couple of old, low-combed doubles this way and it really works. Doesn't damage a stock in any way.

### Straight Grip

Another little trick (and this one may cost you some real money) is to buy, trade for, or modify a gun in order to have a shotgun with a straight stock without the pistol grip. Pointing at high, incoming birds (which is a common shot on doves) is much easier without a pistol grip. If you don't have a straight stocked gun, visit a gun shop or borrow one from a friend and simply do some pointing at imaginary high flyers. You'll quickly discover that for "aiming up" the trigger hand now is directly on the plane of the barrels. For this reason, you don't see pistol grips on many British, Spanish or Italian field guns. People in those lands are serious bird shooters and don't want to be distracted by a crooked pistol grip. With rifles it's a different ball game because these are aimed, not pointed.

But all generalities and observations on the matter of dove shooting are subject to criticism and modification, including mine. The little blue-gray mourning dove is for my money the best instructional aid any shotgunner will ever find. It's plentiful. It's available to all who will do a little scouting. It's great in the pan with a dab of butter and a splash of red wine. It offers the retrieving dog a chance to hone his skills. It also happens to be the most challenging game bird in the world. And best of all, doves are in season . . . right now in Pennsylvania.





**FOR COUNTLESS TRAPPERS**, the beaver is still the number one animal when it comes to traditional furtaking.

# Reflections on the Beaver Pond

**By Joe Kosack**

**D**EEP IN THE hearts of many of the commonwealth's trappers, the beaver is still number one when it comes to traditional furtaking or making the grade as a trapper. Not because the flat-tail is an elusive quarry. It isn't. And it's surely not a superior species of carnivore. It's a rodent.

Still, there's something about this critter and setting those big traps that magnifies this rugged action. Maybe it's instinctive in all trappers. Maybe the animal's image is mesmerizing. Whatever, something is there.

Many furtakers reflect on the days when the quest of pioneer trappers for

beaver opened the West. And all who trudge the workings of the beaver at one time or another share in that dream by forming a parallelism between that historic period and the present.

In days past, trappers had to move deep into the dark valleys of the state to find beaver. However, the flat-tail, through restocking efforts which were started in 1917 and halted in 1924, has now emerged from the wilderness. He finds culverts under the state's network of roads an excellent place to start a dam by blocking the pipe and using the shoulder of the road as breastwork.

Irrigation dams are liked by roaming two-year-olds looking to start their own colony. To a beaver, establishing a colony in a dam is like moving in without having to pay rent.

Beavers have also become nuisances in municipal watersheds and to waterfront homeowners who have woodlots or shade trees. You could say the beaver's accomplishments are marveled at and frowned upon by almost equal numbers.

### First Priority

The first priority of any novice beaver trapper should be to gain full understanding of the animal's motivations, lifestyle and living requirements. These animals do more than fell trees, build dams and eat bark. Some of the most essential information to be uncovered is how the beaver prepares for ice-up when shut off from the land for one to four months. It's during this annual preparation that the beaver is most active. And as this diligent fall effort reaches its climax, the trapper enters the picture.

Beaver scouting or field studies can be carried out during any warm-weather month, but September and October are the best. The most traveled runways are well defined then, and the location of the food cache is usually obvious to a searching eye. This stockpile, consisting of birch, aspen, willow and maple, is consumed when the ice rescinds the beaver's shore pass.

Planning the trapline before the season lets you locate the feeding cache, major channels, bank dens and tunnels before ice-up. From personal experience I can tell you it's no fun trying to locate the workings of beaver when there's seven inches of ice and two inches of snow between you and the beaver. When you have to work through a frozen mass such as this, you want to be exact before you start. If your brain doesn't tell you that much, after probing the ice for three hours your body surely will.

Once you've sized up the colonies or ponds you intend to trap, it's time to

check the equipment. Every beaver trapper should have at least the bare essentials: waders, hatchet, body-gripping trap setter (if you use these traps), shoulder-length gauntlets, pliers, wire, drowning locks, something to carry your gear and catch in, extra name tags, and traps. After you have this equipment, take a good look at your transportation. For all beaver expeditions, be sure your vehicle is tuned up, equipped with winter tires, has plenty of gas, and has an extra outfit of clothing stored inside it. Your life could depend on this preparation if you go through the ice or slip into the drink.

Choosing set locations can be difficult and costly if you don't know what you're doing or aren't well versed on the beaver trapping distance restrictions for sets. For the novice, or anyone who has a problem judging distance, I'd recommend carrying a 15-foot string to measure distances from lodges and dams. Simply tie one end to the beaver structure and measure to your set location. On the whole, though, an amateur should concentrate on traveling beaver rather than on feeding or resting flat-tails.

To find a productive area to trap such beaver, the trapper must identify the most commonly used travelways. These will be well defined by the muddy water remaining over or in them and the number of fresh branches and twigs strewn about their bottoms. Another clue is obtained by following the run to its end and determining whether the critters are actively working there. If they are, the sign is unmistakable.

A lot of thought goes into choosing the set location of a trap. As the regulations stipulate that you may use only ten traps, you have genuine cause to be selective. When electing any potential set location, I quickly determine whether the primary priorities have been met. Is the water deep enough to drown the catch? Is there a sound way to fasten the trap? Will the trap site funnel the beaver into the trap or can it swim around the ambush?



To drown a beaver at the set, a trapper should make his foot trap sets in areas where neighboring portions of the pond are at least three feet deep. For body-gripping traps, a two-foot depth will suffice. If using a foot trap, the trapper should run a wire from the set to deep water, fasten it to immovable objects on each end and attach a drowning lock to the wire.

The drowning lock is nothing complicated. As a matter of fact, it's simply a 1 x 4-inch piece of metal bent on a 90-degree angle with a hole drilled into each end. The corner or angle is placed in the first third of the metal's length. When fastening this lock to the wire, the trap is tied to the long end's hole and the drowning wire is run through the short end's aperture. (Note—The long end of the drowning lock should always be pointed in the direction you want the animal to follow.) This rig will help the beaver find deep water and the drowning lock will keep it there.

Another area of concern is to ascertain whether the beaver will navigate around your set if there are other traveling opportunities. If different routes are possible, try to discourage the beaver from using the others by blockage of some sort or by placing trap sets

in them (if you're confined to limited territory).

All beaver sets evolve from two types of traps—body-gripping and foot-hold—and the trapper who hopes to excel must learn to use both. The foot trap is usually used in runway, pole, castor mound and bait pen sets. It is best set when the beaver has to walk between the closing jaws rather than over them at the set. Why? Since beaver have big, webbed hind feet, the furbearers occasionally flip the loose trap jaw or their feet are sometimes catapulted from between the jaws of the trap when they step on the trap's dog and pan. To avoid these possibilities, be sure the dog is pointing left or right of the beaver's anticipated direction of travel.

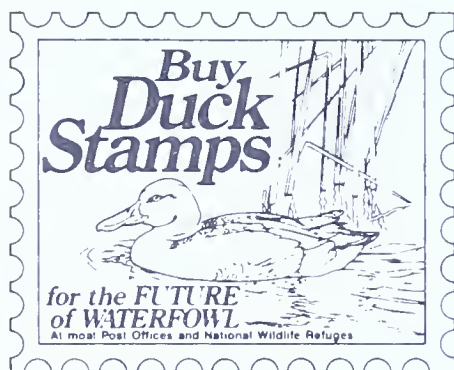
### Off-Center

Regardless of the type of set, foot traps set for beaver should be placed off-center at the trap site because the critter is broad-bodied. With traps set three to four inches from the center of the determined entry or passage point of the beaver, I have no problem taking them. Also, when setting foot traps at slides or exit points, the trapper should place the trap in about 10 inches of water to avoid having the beaver's chest set off the trap prematurely. When a beaver heads for shore, it swims with its front legs tucked against its underside and doesn't drop them until its chest bounces off bottom. However, by using this method, you'll be aiming for a back leg catch.

With body-gripping traps, which are primarily used in runway, tunnel and under-the-ice bait sets, be sure to use strong stakes and support sticks that are not freshly-cut (beaver will eat them). Strong stakes are needed because the beaver puts up quite a struggle. Contrary to popular belief, these are not killer traps, they merely hold the animal until it drowns.

When placing body-gripping traps at the set, be sure to stake them through the coil springs and between the jaw corners of the set trap. When





stationed and staked at the site, the trap should not budge. Also, be sure to clog any opening in the travelway that the beaver could swim through instead of going through the 10-inch-square opening of the trap.

As stated earlier, novices should not use bait sets exclusively on entire traplines unless they're ready to accept a lengthy trial and error period. First-year beaver trappers should stick to the runway, bank den, castor mound and fence sets. If you'd like further infor-

mation on these sets, the Game Commission's *Pennsylvania Trapping Manual* will more than accommodate your needs.

When operating on frozen beaver waters the trapper must step lightly and avoid certain areas if he wants to stay above the ice. Avoid places within 30 feet of the beaver lodge, where creeks enter the primary dam, and frozen waters directly behind the dam's breast.

Step lightly and quietly when traveling through the colony. By moving slowly you're not apt to tear a hole in those new waders and you won't frighten the beavers in the lodge. Slow movement also affords a trapper the chance to react to danger signals before they transform into disaster.

So there you have it. Not the most comprehensive study of beaver trapping, but a selection of pointers for the novice. If you're up to the challenge, the commonwealth's flat-tails await you. If you're not, there's always ice skating or television.

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# OWAA Visits the Keystone State

By Bob Mitchell

Assistant Editor: Game News

**F**OR THE first time since 1964, and for only the third time ever, the Outdoor Writers Association of America (OWAA) held their annual meeting in Pennsylvania.

Over 850 of North America's foremost outdoor writers, editors, photographers, artists, broadcasters, spouses and guests converged on Harrisburg and enjoyed an informative and entertaining blend of formal presentations, technical sessions, exhibits and tours.

The conference began with a keynote address by George Reiger, Conservation Editor for *Field & Stream*, and a "State of the Outdoor Nation" report

THE registration desk was bustling with activity when the 859 OWAA members, spouses and guests arrived at the Harrisburg Marriott to begin the Association's 59th annual conference.

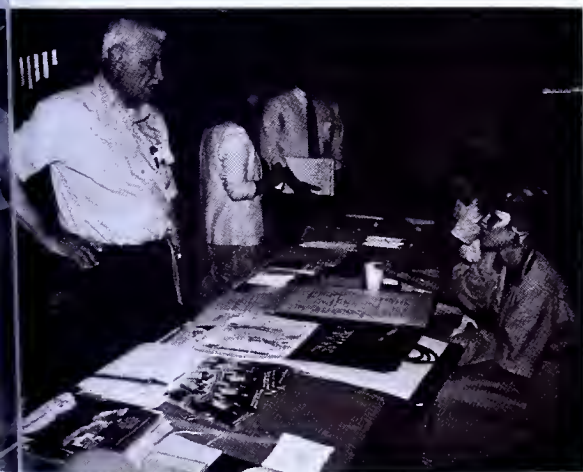


**GEORGE REIGER**, Conservation Editor of *Field & Stream*, challenged the group to incorporate more conservation and environmental issues into outdoor journalism.

by Donald Hodel, U.S. Secretary of the Interior.

Other presentations covered the efforts to clean up the Chesapeake Bay, trends in outdoor recreation, and sportsmen-landowner relations. Seminars to help authors, photographers and newspaper reporters were given as part of OWAA's ongoing efforts to promote professional excellence among its members.

OWAA was formed in 1927 when several writers, who happened to be sitting together during a banquet at an Izaak Walton League Convention, recognized the need for a formal organ-





**DON HODEL**, U.S. Secretary of the Interior, discussed President Reagan's "Take Pride in America" campaign, and the need to more adequately fund the National Park Service.



AMONG the many activities offered spouses were a fashion show (above), cooking demonstrations, and trips to the area's many attractions.

JUST  
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Everybody enjoyed the breakout day activities and the chance to learn what's coming in the outdoor recreation business.

**ARCHERY** demonstrations let people test their shooting eyes with all the latest equipment.



ization to promote and foster professionalism in the then budding field of conservation communication. Today, over 1700 members enjoy the benefits and services of this group.

One of this conference's most popular events, and one that gave attendees a respite from the many meetings and programs, was breakout day. For this, members gathered on the grounds of the Harrisburg Hunters and Anglers Club and enjoyed the opportunity to see and sample the newest products and services of the Association's supporting members.

OWAA's 59th annual conference was a resounding success. A record number of attendees not only heard the latest in outdoor journalism, but also got to experience an early June along the Susquehanna. Here are a few scenes from OWAA's visit to the Keystone State.

Photos by Richard Walton, Bob Haines and Bob Mitchell



**POCONO Adventures on Mules** brought a string to familiarize members with the exciting opportunities available on this old form of transportation.





As important as the formal presentations were the opportunities to meet in small informal groups where a wide variety of topics were shared and



RELOADING presses and accompanying accessories were on hand for shooting enthusiasts to review.



Sharpening is a must for outdoorsmen before they go out on.

CANOES of all sizes and styles were available for test runs.



THE Harrisburg Hunters and Anglers Club grounds was an ideal spot for the festive activities of breakout day.

AN ARRAY of sporting arms was on display for participants to study and handle.



OWAA's 59th annual conference concluded with a sumptuous banquet and award ceremonies.







# FIELD NOTES



## Safe At Last

**CLINTON COUNTY**—It was a quiet spring day when I received an urgent report of an apparently abandoned cub bear. It had been sitting on a log near a dirt road, frantically bawling for nearly five hours. Sportsman Dan Kreps had kept a watchful eye on the cub, from a safe distance, and we were both convinced its mother was gone. I approached it cautiously, thinking the youngster would be quite wild. When I got within 10 feet, however, he scurried over and began climbing up my leg. This lonely little bear thought I was his mother. He was only skin and bones, and had apparently been on his own for a week or more. I immediately contacted Gary Alt, and the cub was introduced to a foster mother without delay. —DGP John Wasserman, Renovo.



## Three and One, One and Three

**ERIE COUNTY**—Why is it that during the three-month beaver season, I didn't receive one damage complaint, but within one month of the season's close, I received three. —DGP Andy Martin, Erie.

## Thanks, Carol

**CAMERON COUNTY**—Carol Flowers, Emporium, was recently presented with the SPORT Award by Elk County DGP Harold Harshbarger, for supplying information that led to the prosecution of a man she had seen shoot a cow and a spike bull elk. —DGP Joe Carlos, Driftwood.

## Good Day

**BRADFORD COUNTY**—Opening day of spring gobbler season was great. I left my headquarters before daylight to cover the popular hunting areas. At my first stop I didn't hear any turkeys, but I did hear several drumming grouse and one cackling ringneck. At my next stop I heard two gobblers, and on my way to another place I saw a gobbler cross the road in front of me. And finally, just to make my day of checking hunters complete, I saw a beautiful black squirrel. —DGP Edward N. Galloway, Wyalusing.

## Including Wildlife

**BLAIR COUNTY**—A growing problem we have here is the illegal operation of ATVs on Game Lands. Operators of these vehicles must face the fact that the primary purpose of these lands is to provide places for wildlife. That's why these destructive vehicles are prohibited from Game Lands. Rampant operation of ATVs is detrimental to wildlife at all times of the year, but it's most severe in winter and spring. I hope that the organizations promoting the recreational use of ATVs seriously address these issues. A program encouraging their responsible use would benefit all. —DGP Stephen A. Kleiner, Altoona.



## They're Here

**ADAMS COUNTY**—Judging by the number of pheasants I've observed and heard about, it should be an excellent season here this fall. —DGP Michael A. Dubaich, Aspers.

## Settling In

**CUMBERLAND COUNTY**—Getting settled in a new district can be difficult. I want to thank my fellow officers, the regional staff, allied agency personnel, state and local police, the judiciary, and the public for welcoming me and making my transition an easier one. A special thanks must go to Jannette Utech, wife of retired DGP Gene Utech, who on many occasions has taken pity on a hungry-looking game protector and provided me with great home cooked meals. I'm eatin' right, Ma! —DGP James R. Binder, Shippensburg.

## Wood Cutter's Union

**BUCKS COUNTY**—DGP Ed Bond and I were helping with an Envirolympics program—an event in which teams of school students compete to see which knows most about natural resources—when a student who had to identify a pileated woodpecker asked if I would help him spell the bird's name. I said of course, provided he could tell me first what it was. He immediately replied, “an affiliated woodpecker.” I guess the birds are organizing. —DGP Cheryl A. Trewella, Trumbauersville.

## Too Good

Food & Cover employees Jim Peterson and Emma Atha had just finished planting a long row of Austrian pine seedlings on SGL 39. They turned around to see how the trees looked. They must have looked good, because several deer were walking down the row, nibbling the tops as they came. —LMO Jim Deniker, Sandy Lake.



## Symbiotic?

While canoeing in this county's swamps this spring, I was impressed with the number of muskrat huts I found. Muskrat numbers were down but they seem to be coming back strong now. And, just as important, most of the huts had ducks or geese nesting on them. It would be almost impossible, and certainly cost prohibitive, to try to put man-made structures in these areas. This is a fine example of how nature's ways are best, and also an example of how different species of animals can benefit from one another. —LMO Keith Harbaugh, Meadville.

## Keeping Track in the News

**BRADFORD COUNTY**—Many years ago (1967) before I came with the Game Commission, I was a supervisor for a dairy in Harrisburg. A young fellow, Jeff Oesterling, worked for me. Jeff was an avid archer who taught me the sport and even loaned me some equipment to get started. I lost track of Jeff over the years, until the other day when I received a letter from him. He is in Idaho now, and he says he's kept track of me through my Field Notes in GAME NEWS. Jeff is still a Pennsylvania boy at heart, and enjoys reading about our outdoor news. It was good hearing from him. If any of my other long lost friends are reading this, I hope you'll drop me a line too. —DGP William A. Bower, Troy.



### Plant 'Em Where?

**ADAMS COUNTY**—Each year I help with a Cub Scouts program called Civic Day, by sharing my activities with two scouts. This is always a lot of fun. This year the day was beautiful and I took the boys on a tour through a local Game Lands. At a pond the boys asked if they could take a few cattails home, and I let each pick two. We then headed for Gettysburg. On the way, one of the boys accidentally bumped the long, dry flower spike, and it burst open, releasing what seemed like millions of tiny seeds, each attached to a fuzzy parachute. The other boy then examined his and it popped open, too. I'm sure we looked like one big fuzzy snowball rolling into town. I'm still removing them from my vehicle, my clothing, my hair and my teeth. —DGP L. D. Haynes, Gettysburg.

### The Fun Of It

When I was promoted to the I&E Supervisor position here, my wife Ilene thought the night work would diminish and I'd be home more during evening hours. Well, things do not always flow as expected. On the new job, I am away more than ever, attending countless meetings throughout the region. And there never seems to be enough time to get everything done in the office. Life has a way of going in ways we don't always expect. —IES Barry Moore, Ligonier.

### Do It Now

**CLEARFIELD COUNTY**—Hunting season has begun. If you need a hunter-trapper ed class, don't delay any longer. They will soon be over. —DGP Don Zimmerman, Drifting.

### And Then Silence

**LEHIGH COUNTY**—The phone rang while Deputy Harry Gardner and I were trying to prod a squirrel from a woodstove and into a sack. It was obviously the man of the house calling, but I hate to imagine what he was thinking. The first words his upset wife said were, "Two men from the Game Commission are here with pistols to get the squirrel out of the stove." —DGP T. M. Grenoble, Fogelsville.

### Attention First-Timers

**PHILADELPHIA COUNTY**—Now is the time to start thinking of hunter-trapper education. The new combined 10-hour course is mandatory for all first-time hunters and furtakers. Most classes are held in late summer and early fall, before the seasons begin. Don't wait until the last minute, make your plans now. —DGP Richard J. Shire, Philadelphia.

### Jobs Well Done

**WASHINGTON COUNTY**—On Saturday, March 22, a group of 30 youngsters and 10 adults, known as the Royal Rangers from Steubenville, Ohio, met me and Deputies Jim Locq, Lou Benton and Joe DeWitte, at Cross Creek County Park. We were all there to erect 24 bluebird boxes the Rangers had built. The group not only did a fine job constructing and erecting the boxes, but also managed to pick up and dispose of a tremendous amount of litter there. I'd just like to say thanks again, guys, for an enjoyable day and a job well done. —DGP R. Matthew Hough, Washington.

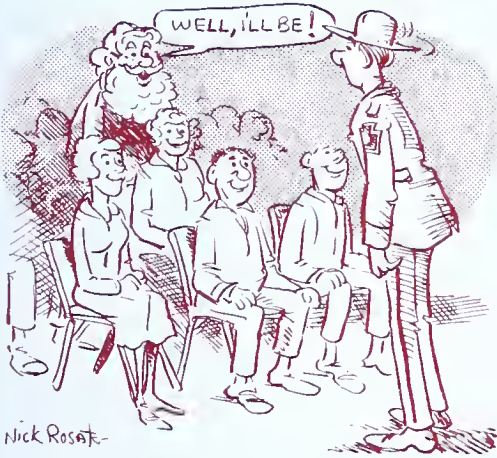


## Comin' Your Way

**LUZERNE COUNTY**—On a recent weekend visit home I contacted DGP Dick Anderson, who invited me to go along on patrol. I soon realized I'd been expertly conned. We had to rescue a buck that was stuck in the middle of Bushkill Creek. Later, when Dick asked why I was laughing instead of grumbling, I didn't reply. I just thought about the saying, "He who laughs last . . ." and how I'd found just the right location for a rowdy bear and a couple of beaver dam builders I have to move. —DGP Robert W. Nolf, Conyngham.

## Taking No Chances

**UNION COUNTY**—Mifflin High's vo-ag teacher Tim Weller told me about a wild mallard that found a predator-proof nest site on his farm. The bird built its nest inside Tim's closed springhouse. The only way the bird or anything else could get to or from the site was by swimming underwater. —DGP Bernie Schmader, Millmont.



## Specialist

**TIOGA COUNTY**—After speaking to a group about planting trees to create various habitats for different species of wildlife, a man in the audience replied, "Gee, I didn't know there were so many types of trees. The only one I know is a Christmas tree." —DGP John Snyder, Wellsboro.



## No Help, Please

**CRAWFORD COUNTY** To supplement bald eagle production here, after a natural clutch has been destroyed we sometimes place an artificial egg in the nest. We hope this will stimulate the birds to continue incubating. If they do, we then place a foster eaglet in the nest for the pair to raise. If all goes well, the parents will care for the youngster as if it were their own. While conducting this operation recently, we got the idea of placing a cabbage patch kid in the bedroom of one of our local newlywed game protectors. —DGP Rob Criswell, Meadville.

## Out Looking

**CAMBRIA COUNTY**—I've been in the southern end of this county for several months now, and I have seen many picturesque landscapes—of which the residents can be quite proud—and a wide variety of wildlife. What I'm really anxious to see, though, are the persons responsible for the unsightly litter and refuse which defiles this natural beauty. —DGP Richard F. Weaver, Johnstown.

## True

**WESTMORELAND COUNTY**—Something to think about: We inherit our natural resources from our fathers, but we borrow them from our children. —DGP R. D. Hixson, Ligonier.

## Local Expert

**SOMERSET COUNTY**—I was helping Dennis Jones and Harry Richards, supervisors from the Ligonier Regional Office, introduce an orphan cub to a sow with three cubs of her own. As we were preparing to leave our vehicle, an elderly gentleman came along with his two dogs. He wanted to know what we were doing. When I told him, he promptly informed me there were no bears in the area. I didn't argue, and we went our separate ways: he down the mountain with his dogs and we a few hundred yards up the mountain to where three cubs and a large sow were living. —DGP Cliff Guindon, Stoystown.



## Matchmakers

**WESTMORELAND COUNTY**—Forester Don Little and I played cupid several weeks ago. A woman from the Yukon area called about a gobbler visiting her feeder. She thought he seemed lonely and wondered if I could locate a hen for him. It just so happened that Don knew a farmer who had a wild hen, so we made plans to get the two birds together. As Don and I were transporting the hen, we spotted the gobbler walking near a woodlot. We stopped and carried the caged hen to a safe area for release. When we let her go, she flew directly toward the gobbler. —DGP Dennis Neideigh, Greensburg.

## Check the Brakes, Too

**BUTLER COUNTY**—Deputy Gary Toward was explaining gun nomenclature at a recent hunter ed class and had just finished talking about shotgun chokes. During a break, a woman in the class came up and wanted him to further explain the clutch. Gary was a little bewildered until he realized the woman meant choke, and had associated automobile parts with gun parts to help her remember. —DGP Larry Heade, Butler.

## On His Merry Way

**FAYETTE COUNTY**—Ed Ritsko, who lives near the Maxwell Lock and Dam on the Monongahela, reports that one day in March the Army Corps of Engineers people noticed a beaver swimming around the lock entrance. They opened the lock and raised the beaver to the next level so it could continue up the river. Talk about animals adapting to human conventions. —DGP Charles H. May, Connellsville.

## Be Specific

**CLARION COUNTY**—Being new here, I certainly can use help from residents calling with information. Route numbers instead of local road names would be a big help, and more precise directions to the area of the township they are talking about would save much time. In the upcoming hunting season, every little detail will be important. —DGP Jim Egley, Knox.

## Or Pay Up Again

**ELK COUNTY**—I recently had to stop a group of people for riding their RVs on State Game Lands. While their motors were off and I was settling the violations, I heard a couple of the individuals commenting on the many different bird songs they were hearing. I hope they enjoyed those natural sounds enough to persuade them to leave the motor vehicles behind the next time they decide to visit the Game Lands. —DGP Dick Bodenhorn, Ridgway.



# BEAVER HARVEST GOOD

PENNSYLVANIA'S 1986 beaver harvest dropped from the record mark established in 1985, but remained at a relatively high level, a Game Commission compilation shows. This year, 5272 beavers were taken, compared to 7232 in 1985.

Actually, the 1986 harvest is considered surprisingly high, in light of the fact that some of the better beaver counties experienced severe icing conditions throughout this year's season.

The harvest indicates inroads are not being made into the normal supply of the aquatic furbearers. In fact, a high population of the flat-tails has prompted the Game Commission to increase the daily and season beaver limit to 12 in Wayne County during the upcoming season. In other counties, the daily and season limit will be 6.

Normally, trappers take between 3500 and 5000 beavers, depending mainly on weather conditions during the open season. As recently as 1978, the figure was only 1404.

The leading county for beaver pelts this year again was Crawford, with 679 of North America's largest rodents taken. One year ago, Crawford produced 1118 beavers. Other leading beaver-producing counties were McKean, 433; Potter, 374; and Clearfield, 338.

By region, the Northwest produced 1928 beavers; the Northcentral 1647;

Northeast, 1186; Southwest, 321; Southcentral, 127; and the Southeast, 63. Altogether, trappers took beavers in 58 counties this year.

Beaver harvest by counties follows:

County	Beavers
ADAMS	8
ALLEGHENY	4
ARMSTRONG	48
BEAVER	53
BEDFORD	45
BLAIR	6
BRADFORD	176
BUTLER	106
CAMBRIA	75
CAMERON	19
CARBON	5
CENTRE	56
CHESTER	10
CLARION	69
CLEARFIELD	338
CLINTON	30
COLUMBIA	12
CRAWFORD	679
DAUPHIN	2
ELK	150
ERIE	287
FAYETTE	26
FOREST	89
FRANKLIN	9
FULTON	25
GREENE	15
HUNTINGDON	9
INDIANA	11
JEFFERSON	95
JUNIATA	8
LACKAWANNA	64
LANCASTER	7
LAWRENCE	5
LEBANON	1
LUZERNE	122
LYCOMING	76
McKEAN	433
MERCER	224
MONROE	151
MONTOUR	5
NORTHAMPTON	4
NORTHUMBERLAND	1
PERRY	8
PIKE	100
POTTER	374
SCHUYLKILL	15
SOMERSET	43
SULLIVAN	42
SUSQUEHANNA	237
TIOGA	193
UNION	13
VENANGO	98
WARREN	256
WASHINGTON	50
WAYNE	236
WESTMORELAND	2
WYOMING	44
YORK	3



## GAMEcooking Tips

While visiting New Orleans, I was fortunate enough to meet the owner and driving force behind the New Orleans School of Cooking, Joseph Cahn. Mr. Cahn is a true disciple of Louisiana Cuisine and a native son his city can be proud of.

After attending his school, I couldn't wait to get home and improvise with pheasant and venison sausage and rabbit. Here are the resulting recipes—a taste of Louisiana à la wild game.

### Joe Cahn's Jambalaya

- 1 pheasant, cooked and meat removed
- 1½ pounds venison sausage, cut into bite-size pieces
- ¼ cup lard
- 4 cups onion, diced
- 2 cups celery, diced
- 2 cups green pepper, chopped
- 1 garlic toe\*, chopped
- 1 teaspoon paprika
- 5 cups pheasant stock
- 3 heaping teaspoons salt
- Cayenne pepper to taste
- 4 cups long grain rice
- 1 cup green onion
- 1 cup fresh parsley, chopped

*\*In Creole cooking, one segment of garlic is referred to as a "toe."*

*Sometimes you will see this ingredient listed simply as "1 toe"!*

Place pheasant in large pot and add seven cups of water. Bring to a boil and then reduce heat to simmer. Cook pheasant one-half hour, reserving liquid for stock and removing pheasant to cool. When fowl is cool enough to handle, remove meat from bone and cut into bite-size pieces.

Melt lard in a heavy pot. Add sausage and sauté 10 to 15 minutes until cooked and browned, stirring frequently. Remove from pot.

Add onions, celery, green pepper to the oil and sauté until vegetables are tender (about 10 minutes). Remove from heat. Add sausage, pheasant and garlic, stirring well after each addition. Add paprika at this time.

Pour stock into pot and return to heat. Bring to boil. Add salt, pepper and rice. Stir to combine and return to a boil. Cover and reduce heat to simmer. Cook for 30–35 minutes without peeking.

After 30 minutes, peek, stir and test rice for doneness. Add green onions and fresh parsley, stir and serve.

—FROM WILD GAME COOKERY  
BY CAROL VANCE WARY

## 26,180 Deer Killed on State Highways

The number of deer killed on Pennsylvania highways in 1985 was 26,180, according to the final compilation by Pennsylvania Game Commission personnel.

Last year's highway kills were up just slightly from the 1984 figure of 25,788, but short of the record 29,914 in 1975.

Leading counties in highway deer kill last year were Venango, 853; Butler 824; Berks 824, Luzerne, 823; Westmoreland, 765; Schuylkill, 749; Clear-

field, 724; Bedford, 718; and Bucks, 703.

Total recorded deer mortality in the state last year, other than those taken by hunters, came to 31,595, down slightly from the 1984 figure of 32,325, most of which were roadkills.

Bears continue to be killed on state highways at a fairly high level; last year, it was 90, compared to 116 in 1984. Total out-of-season bear mortality for 1985 was 137, compared to 206 in 1984.



COMMONWEALTH OF PENNSYLVANIA  
**HUNTING LICENSE APPLICATION**  
(Certified Check or Money Order in US Currency  
Required for Mail Orders from Non-Residents)

LICENSE FEES ARE NOT REFUNDABLE		Agent Write In	Agent Write In
Check Type(s) Desired In Block		Stamp Number	Stamp Number
Res. Ad. (17-64 yrs.)	<input type="checkbox"/> \$12.50	Res. Ad. Furtakers	<input type="checkbox"/> \$12.50
Res. Jr. (12-16 yrs.)	<input type="checkbox"/> \$ 5.50	Res. Jr. Furtakers	<input type="checkbox"/> \$ 5.50
Res. Sr. (65 yrs. & older)	<input type="checkbox"/> \$10.50	Res. Sr. Furtakers	<input type="checkbox"/> \$10.50
Non-Res. (Hunt)	<input type="checkbox"/> \$80.50	Non-Res. Ad. Furtakers	<input type="checkbox"/> \$80.50
Non-Res. Jr. (Hunt)	<input type="checkbox"/> \$40.50	Non-Res. Jr. Furtakers	<input type="checkbox"/> \$40.50
**Muzzle Loading	<input type="checkbox"/> \$ 5.50	** (Cannot be purchased after September 30th)	
Archery	<input type="checkbox"/> \$ 5.50		

5-day Non-Resident Small Game Valid From \_\_\_\_\_ To \_\_\_\_\_ \$15.50

\*Resident Disabled War Veterans Claim No. \_\_\_\_\_ Free ☐ Claim No. \_\_\_\_\_

ALL MAIL ORDERS — Add \$.75 POSTAGE \_\_\_\_\_ Furtakers Back Tag No. \_\_\_\_\_

\*Available only from County Treasurers TOTAL \_\_\_\_\_ Hunting Back Tag No. \_\_\_\_\_

**PRINT PLAINLY**

Name \_\_\_\_\_  
(First) (Middle Initial) (Last) (Occupation)

Legal Residence \_\_\_\_\_  
(Street or R.F.D.)

City \_\_\_\_\_ State \_\_\_\_\_ (Zip Code)

Phone No. ( ) \_\_\_\_\_  
(County of Residence) (Area Code) (Official Use, PGC Only)

Age \_\_\_\_\_ Color \_\_\_\_\_ Color \_\_\_\_\_  
Hair \_\_\_\_\_ Eyes \_\_\_\_\_ Weight \_\_\_\_\_ Height \_\_\_\_\_

Date of Birth \_\_\_\_\_ Sex: ☐ Male ☐ Female

Place of Birth \_\_\_\_\_  
(Post Office) (State) (Nation) Resident of Pennsylvania since \_\_\_\_\_

I present the following as evidence that I have completed the required hunter education course or have held a hunting license in a prior year:

Hunter Education Training Certificate \_\_\_\_\_ Date \_\_\_\_\_

A hunting license from a prior year \_\_\_\_\_  
State Year License#

I am unable to produce a prior hunting license, but certify below that I did hold a hunting license issued by \_\_\_\_\_ in a prior year.  
(State, Province, etc.)

Agents Not Responsible for Licenses lost by Mailing.  
Mail Application and correct amount of fee (Include \$.75 postage) to the **PENNSYLVANIA GAME COMMISSION, LICENSE SECTION, HARRISBURG, PA. 17105-1567. (DO NOT SEND STAMPS)**. All applicants must present proof of Hunter Safety Training or prior hunting license. (Preferably a photostatic copy). 5-day Non-Resident Small Game License not valid for turkey or big game. Mail orders for Resident Hunting Licenses must include positive proof of residency in this Commonwealth.

**AFFIDAVIT OF CORRECTNESS**

I certify that all of the above information and documents presented are true and correct and that my hunting privileges are not revoked for this license year.

(X) \_\_\_\_\_  
(Signature of Applicant plus parent or guardian for persons under age 16) (Date)

I hereby certify that applicant has properly identified himself/herself and in my opinion is entitled to license(s) listed.

Signature of Issuing Agent) \_\_\_\_\_

# Outstanding Deputy Game Protectors—1985

*The deputies shown, one from each field region, have been recognized for their outstanding contributions to the programs of the Pennsylvania Game Commission during the past year. Their efforts are appreciated.*



**Daniel J. McGinnis**  
Clintonville  
Northwest Region



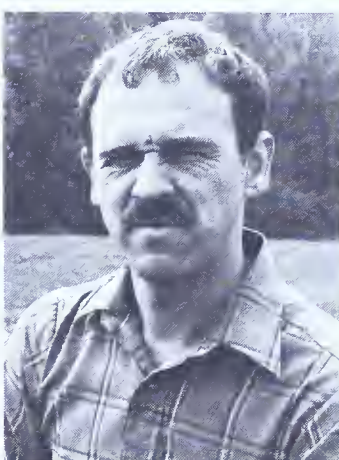
**Frank W. Bennett**  
Montgomery  
Northcentral Region



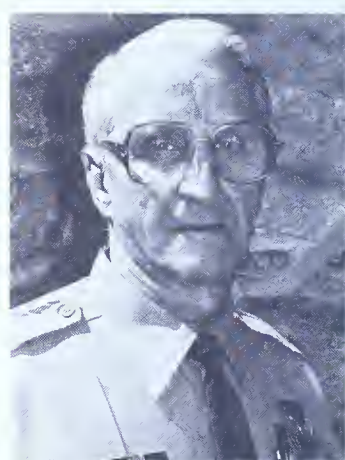
**Bruce E. Carey**  
Montrose  
Northeast Region



**Anthony M. Goffi**  
Washington  
Southwest Region



**Kirk W. McMinn**  
Burnham  
Southcentral Region



**Roscoe L. White**  
Fairless Hills  
Southeast Region

## Note Regarding Dove Seasons

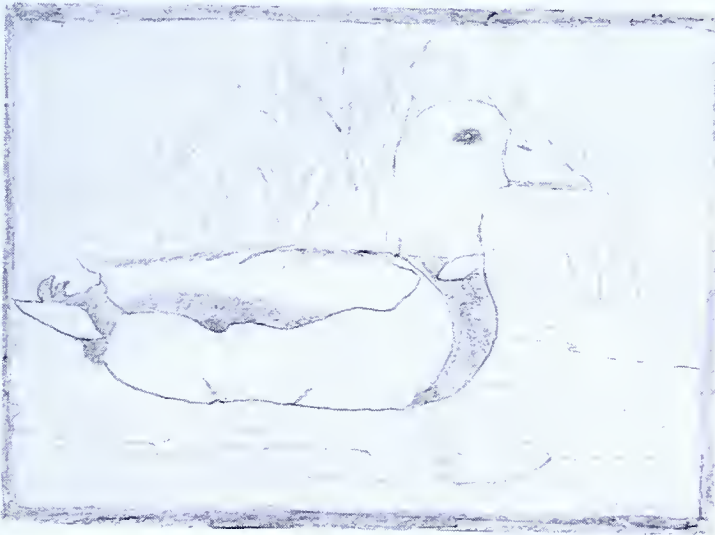
We normally publish in the September issue the seasons and bag limits for doves, rails, gallinules, snipe and woodcock. That information does not appear in this issue because the printing date for GAME NEWS has been moved ahead and we have not yet received federal approval for our recommended dates. It is expected—but not officially approved—that the dove season will open at 12 noon on September 1. Check your newspaper for further information.



# young artists page



Woodchuck  
Victoria Miller  
Duncansville, PA  
Bishop Guilfoyle High School  
Grade 12



Duck  
Jesse Wagner  
Muncy, PA  
Hughesville High School  
Grade 7

# NEW ALLEGHENY RIVER ACCESS MAP

The Western Pennsylvania Conservancy has published a new map pinpointing 36 access sites for boaters now available along the Allegheny River, from just below Kinzua Dam in Warren County to The Point in Pittsburgh. The map also shows major tributaries to the Allegheny River, as well as river miles between each access.

Copies of this new map are available for \$1.00 each by sending a self-addressed, stamped, business-size envelope to: River Map, Western Pennsylvania Conservancy, 316 Fourth Avenue, Pittsburgh, PA 15222.

The map can also be picked up at the Conservancy offices on weekdays between 9 a.m. and 5 p.m.



Harry Merz

THE GAME COMMISSION and other state agencies have been enjoying the services of young adults enrolled in the Pennsylvania Conservation Corps (PCC), a state program designed to provide jobs to economically underprivileged people of 18 to 21 years of age.

One of the Corps' accomplishments was the construction of nearly 3000 bluebird boxes (insert). Above, Union County DGP Bernie Schmader presents one of these to Farm-Game cooperators Mr. and Mrs. David Hurst, Mifflinburg. Corps members also built a new building and renovated others at Howard Nursery, developed a new nature trail at Pymatuning and put a new roof on the area's museum, constructed 1850 pheasant crates and made hundreds of wooden information signs, and conducted a wide variety of habitat improvement projects on State Game Lands and Farm-Game projects. By all accounts this program has been a success. A great deal of conservation work has been accomplished, and many of the participants have been able to obtain fulltime employment because of the training gained through the PCC program.





# Game Commission Publications & Items

Quantity	Books	Price
_____	BIRDS OF PENNSYLVANIA, by James & Lillian Wakeley . . . . .	\$ 10.00
_____	THE WINGLESS CROW, by Charles Fergus . . . . .	\$ 10.00
_____	MAMMALS OF PENNSYLVANIA, by J. Kenneth Doubt, et al . . . . .	\$ 4.00
_____	GONE FOR THE DAY, by Ned Smith . . . . .	\$ 4.00
_____	PENNSYLVANIA WILD GAME COOKBOOK . . . . .	\$ 4.00
_____	DUCKS AT A DISTANCE . . . . .	\$ 1.00
_____	WOODLANDS AND WILDLIFE . . . . .	\$ 2.00
_____	PENNSYLVANIA TRAPPING MANUAL, by Paul Failor . . . . .	\$ 3.00

## Working Together for Wildlife Collectibles

_____	1986 ART PRINT "Country Lane Kestrel" . . . . .	\$125.00
_____	1986 KESTREL PATCH . . . . .	\$ 3.00
_____	1986 KESTREL DECAL . . . . .	\$ 1.00
_____	1985 BOBCAT PATCH . . . . .	\$ 3.00
_____	1985 BOBCAT DECAL . . . . .	\$ 1.00
_____	1984 BLUEBIRD PATCH . . . . .	\$ 3.00
_____	1984 BLUEBIRD DECAL . . . . .	\$ 1.00
_____	1983 OTTER DECAL . . . . .	\$ 1.00
_____	1982 OSPREY DECAL . . . . .	\$ 1.00
_____	1981 FLYING SQUIRREL PATCH . . . . .	\$ 3.00
_____	1981 FLYING SQUIRREL DECAL . . . . .	\$ 1.00

## Wildlife Management Areas

_____	PYMATUNING WATERFOWL PATCH . . . . .	\$ 2.00
_____	PYMATUNING WATERFOWL DECAL . . . . .	\$ 1.00
_____	MIDDLE CREEK WATERFOWL PATCH . . . . .	\$ 2.00
_____	MIDDLE CREEK WATERFOWL DECAL . . . . .	\$ 1.00

## Pennsylvania Bird and Mammal Charts

_____	Set 1 (4 charts) 20" x 30" . . . . .	\$ 4.00
_____	Set 2 (4 charts) 20" x 30" . . . . .	\$ 4.00
_____	Set 3 (8 charts) 11" x 14" . . . . .	\$ 4.00
_____	GAME NEWS Cover Prints (4 by Ned Smith) 11" x 14" . . . . .	\$ 4.00
_____	State Symbols Chart 20" x 30" (Deer, Grouse, Hemlock, Laurel) . . . . .	\$ 2.00

## SPORT Items

_____	Bronze SPORT Tie-Tac/Lapel Pin . . . . .	\$ 3.50
_____	SPORT License Plate . . . . .	\$ 4.00
_____	SPORT Patch . . . . .	\$ 1.00

## GAME NEWS

_____	GAME NEWS Binder (Holds 12 Issues) . . . . .	\$ 5.00
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## Waterfowl Management Stamps (Voluntary)

_____	1986 Waterfowl Management Duck Stamp . . . . .	\$ 5.50
_____	1985 Waterfowl Management Duck Stamp . . . . .	\$ 5.50
_____	1984 Waterfowl Management Duck Stamp . . . . .	\$ 5.50

Mail orders along with remittance to Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567. Checks should be made payable to Pennsylvania Game Commission.

DO NOT SEND CASH

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_



On Arbor Day, April 25 the Dauphin County Conservation District joined the Dauphin County Anglers and Conservationists in planting two American sycamores as living memorials honoring Millersburg wildlife artist Ned Smith and Earl Klase volunteer manager of the E. J. Stackpole Cooperative Trout Nursery. Among the family and friends that attended the dedication along Clarks Creek were Ned's wife Marie Smith and Jerry Hassinger, friend and wildlife biologist.

NHF Day gives you an opportunity to let people know how important habitat is to wildlife. And what sportsmen do to help wildlife. It's also a chance to have fun and share the outdoor tradition with a youngster or someone else who's never experienced the outdoors.

All the materials you and your fellow sportsmen need to organize a National Hunting and Fishing Day activity in your hometown are included in the "Complete Organization Packet," and it costs only \$5.00. The "Complete Organization Packet" contains pages of proven ideas for organizing a successful NHF Day program, scores of booklets, fact sheets, sample ads and publicity materials.

For individual sportsmen, there's a "One-on-One Kit" for only \$2.00 with factual booklets, posters and bumper stickers to take the NHF Day conservation message to non-sportsmen.

-----  
**To: National Hunting and Fishing Day\***  
 P.O. Box 1075 • Riverside, CT 06878

☐ I represent a club; please rush \_\_\_\_\_ "Complete Organization Packets" @ \$5.00

☐ I want to do my part; please rush \_\_\_\_\_ "One-on-One" Kits @ \$2.00

Enclosed is a check or money order for \$ \_\_\_\_\_

Name \_\_\_\_\_

Organization \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

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**Sept. 27, 1986**

**NATIONAL  
 HUNTING  
 & FISHING  
 DAY®**



# When Darkness Falls

**T**O KNOW HOW black a night can be, you must be lost in the woods when darkness falls. I don't mean in that half-twilight, once color has flown, when a hunter can still pick a pathway through the trees, but true, inky, impenetrable night without the hope of a moon. With the waning of light around us, all feeling of security vanishes and we grow grizzly bears out of the rustling sounds of a curious raccoon. Minus our accustomed eyesight, we learn how poor our other senses are at helping us get around. We realize that Man could never be a night animal: as soon as the sun goes down, we're lost.

Being in a forest after dark is a great experience when a person wants to be there—raccoon hunting, for instance, or taking a moonlight trail-walk—and when he, or she, is not alone. Then our limited vision opens us up to unique night sounds. Pine boughs sigh in the breeze, owls call and crickets sing. We notice the scents, spicy and rich, of the damp woods. An outdoorsman has missed something important if he hasn't experienced some of the night, even if it's just sitting outside the tent, listening, as the fire burns to red embers.

Many of us who hunt have had the opposite experience as well, of being in the night woods when we didn't want or plan to be there. Alone in the blackness, we've felt an age-old vulnerability, and learned we haven't completely stilled the instinctive fear of things that go bump in the night. I have



**THE SETTING SUN** can be a beautiful sight, but when you're alone in the woods and a long ways from the cabin, it can bring some uncomfortable moments.

## Another View...

by Linda Steiner

never had to spend an entire night in the woods, through losing my way, but I've endured enough hours in the dark to know the feeling.

Some hunters of my acquaintance say they wouldn't mind getting lost in the forest overnight, just for an experience they could talk about afterward. I don't share their desire, and I do what I can to be on the right trail toward home when the sun goes down.

It's not that I have any dread of being lost forever. Pennsylvania doesn't

have that kind of wilderness, and a person should be able to walk out the following day. It's not a fear of any real harm coming to me, either, as no animals in this state are ferocious enough to want to eat me up. But I would like to avoid the inconvenience of the thing, the delay and discomfort, and save the embarrassment of having to admit that my woods skills had failed me.

### Befuddled . . .

There are many words in the outdoorsman's vocabulary for getting lost—confused, bewildered, befuddled, disoriented, turned around—but they all mean a person can't find the way back, at least not right now. Anytime we hunters are in the woods, we maintain a mental map of where we are and our relationship to where we're going and where we came from. But let something cut off our sense of location, rip up the map, and we might as well be in a trackless wilderness as only a couple of miles from the car or camp.

It doesn't take much to get lost, when the familiar suddenly becomes strange. Even on well known terrain, weather changes during a day's hunt. Fog, rain or snow can blot out remembered landmarks and make the woods an alien place. A wrong turn on a ridgetop can leave us looking into a ravine we don't recognize, or a fork that shouldn't be there may appear ahead in the trail. It's as if the map has been skittered out from under our feet.

Take a few steps farther, though, and a signpost such as a clump of birch or a peculiar boulder will appear to swing the map around. We find we're still "on the paper" and right side up. Losing or finding our way in the woods is often like one of those optical puzzles, a trick of the eye, when reversing the dark and light images turns a picture of an old hag into a beautiful girl.

In my hunting career, I've been delayed in getting out of the woods for two other reasons: the country I was in was big or it was thick. If I had a choice of where to get lost, though, I'd take

"big" every time. In the mountain counties, with their vast wooded acreages, a hunter who's gotten turned around always has the advantage of the long view. A hilltop vista makes it possible to pick out a distant destination, while the open woodland allows a missed path to be seen and found again. As a last resort, a hollow will always lead to a creek, which will lead to a road and, if necessary, to a thumbed ride.

But "thick" is another matter. I have been more truly lost in flat brushy country, like the swamps of the Poconos, than anywhere else. Without a high point to show direction, being able to see only a few feet, and with no obvious water drainages, it's easy to walk in endless circles. When the sun, one light to steer by, is hidden by fog or clouds, the problem is compounded. After a few near-overnighters in the bogs, I learned to carry a compass.

Though I tote no true survival kit on casual one-day hunts, I have found that a few items in my pockets make the possibility of an unplanned overnight woods-stay less worrisome. Besides the compass, to get me out in the morning, if not before, I carry a knife and a pack of matches or a cigarette lighter. A small fire would be as great a help in keeping away the bugaboos of a night alone as in providing warmth.

A large plastic garbage bag folded small, or a compact space blanket, takes up little room in a game bag but could be fashioned into a ground cloth or instant shelter against rain or wind. A penlight or similar small flashlight would be useful in picking a way over rough terrain at night or finding firewood after dark.

Perhaps most important, I've found, is a food stash, an extra candy bar, granola bar, or similar packaged product. This isn't a survival ration, but rather provides a pick-me-up, a psychological boost. The few times I've been momentarily misdirected in the woods, a snack went far to say to me, "You're okay; you're in control; you'll be home soon." And the funny thing is, I always was.

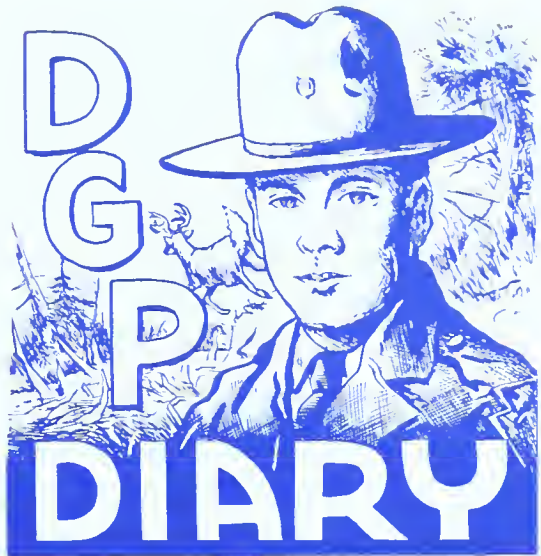


**I**N SOUTHEASTERN Pennsylvania, the first game of the fall hunting season is the mourning dove. Fast on the wing, plentiful in the field and good on the table, this game bird draws the attention of thousands of scattergunners each year. A day's shooting on a good flyway will teach a new hunter more about the art of shotgunning than will a whole season of ruffed grouse or pheasant hunting. But be prepared to pay your dues. Dove shooting in early September is a hot and sticky business. Your eyes burn as sweat trickles down your forehead, the flies and mosquitoes drive you crazy while you try to blend into a field of standing corn, and by the end of the day your throat is as parched as the Mojave Desert. However, when the birds start flying, you forget those minor irritations. Try dove hunting this fall. You may discover you've been missing out on a good thing.

*September 2*—Met Deputy Albert Lange early this afternoon at the State Police Barracks in Avondale. Although it's Labor Day, the last holiday of summer, it's also the opening of the dove hunting season and the official beginning of my busiest time of year. In spite of the heat and humidity, Al and I found a good number of wing shooters throughout the Avondale, Landenberg, and West Grove areas. Except for one individual we cited for gunning without a license, all appeared to be in compliance with the regulations. As the day progressed and the doves started to move toward their roosting areas, the shooting increased. So did the number of birds in the gamebags we checked. We wrapped up our patrol at dark—the end of day one of a five-month hunting season which will continue through January.

*September 3*—Spent the morning in the office completing monthly reports and putting together an article for my newspaper column. By 2 p.m., I was back in the field, patrolling for dove shooters. A fair number of hunters were out, but I noted no violations.

*September 4*—Investigated a safety zone complaint in East Marlborough Township. Several individuals had been shooting doves yesterday over a freshly chopped cornfield, and in the process one had gotten too close to a private residence. All I have to go on is the license number of a vehicle parked at the edge of the field where the violation occurred. It may or



**By Keith Sanford**

**District Game Protector  
Chester County**

may not belong to the guilty party as several hunters were in the area at the time of the incident. In many instances, whether or not a violation of the law is successfully prosecuted hinges on getting the necessary information to the investigating officer in a timely manner. If you observe an infraction of the Game Law that should receive immediate attention, contact your local game protector. If you are unable to reach him, as is often the case during hunting season, phone the regional office which has jurisdiction over your particular county and have them relay the information to the officer or one of his deputies. Remember, the more details you can provide, the better our chances of making a case.

*September 6*—Patrolled this evening in the Oxford, Nottingham, and Cochranville areas, and made cases on two hunting license violations. One was simply a matter of the defendant not having purchased the required backtag. The other involved a young boy hunting on a resident license while his father was in possession of a nonresident tag. In questioning this, the father informed me that his dependent son was attending a private school in Pennsylvania and staying with relatives who live here during the week. On weekends and holidays and during summer vacation, the boy would return to his parents' home in Delaware. Under the Game Law, a person

has to be permanently domiciled within the state for at least 60 days before being eligible for a resident license. I confiscated the tag and charged the father with "aiding in securing a hunting license for a person not entitled to same."

*September 7*—September is a key month in Pennsylvania for hunter education. I try to attend each class held in my district so that I may personally cover the course material relating to the Game Law. This morning, I helped instruct courses which were being sponsored by the Atglen Sportsmen's Club and the West Chester Fish and Game Association.

In the afternoon, Deputy Wayne Swinehart and I patrolled in West Fallowfield, Upper and Lower Oxford, and East Nottingham townships. On a tip from a former deputy, Donald Entrekin, we spot-checked an area where there had been a good bit of shooting over the past several days. The information paid off as we apprehended two individuals, both hunting doves without licenses.

*September 9*—After clearing up some office work and distributing films to a pair of my hunter ed instructors, I traveled to our Harrisburg office where I met Ted Godshall, Chief of the Information Division. Together, we drove to the Game Commission's training school near Brockway, where tomorrow we'll be instructing the 19th class of student officers.

*September 10*—This morning, Charlie Burchfield, outdoor writer for the DuBois Courier Express, Ted Godshall, and I took the morning session at the training school and provided the students with instruction in the art of outdoor writing. Several game protectors throughout the state do some writing, providing their readers with insight into the world of wildlife and hunting that differs from the conventional prose offered by most scribes. Our goal today was to show each student how writing could enhance the public relations program in a district and to encourage those with an interest in the subject to try it.

After lunch, Ted and I headed back to Chester County, where we attended the monthly meeting of the Atglen Sportsmen's Club. Ted was the keynote speaker and gave a presentation on the Game Commission's deer management program.

*September 12*—This morning, traveled

to Delaware County where I had the annual frequency check performed on my state vehicle's two-way radio. Spent the rest of the day in the office, returning calls and preparing prosecution reports.

*September 13*—Patrolled for dove hunters in the West Grove, Lewisville, and Landenberg areas.

*September 14*—In the morning, helped instruct a hunter education course at the Boy Scout cabin in Avondale. Later, with the assistance of Deputy Horace Steffy, patrolled for dove hunters in the Coatesville, Cochranville, and Oxford areas.

*September 16*—Patrolled for dove hunters in Pocopson Township. Later in the evening, attended the bimonthly meeting of the Chester County Federation of Sportsmen's Clubs in West Chester.

*September 18*—While en route to a meeting at Nottingham Park, I decided to check a couple of known hunting areas in the vicinity of Strickerville. At a small housing development where I had encountered problems in the past, I found a Delaware vehicle parked at the bottom of a cul-de-sac. A quick check with several neighbors failed to identify the car's owner. Some paraphernalia I observed in the vehicle made me believe its occupants were hunting. I waited for them to return. Just at dark, a lone figure came out of a nearby field, carrying a compound bow. I identified myself and asked what he had been doing. His reply was "deer hunting." And he had been doing that on a Delaware hunting license a good half-mile into Pennsylvania during the closed season. I informed the hunter of the violations, and he requested to settle them with me on field receipts the next evening. I arrived at the meeting in Nottingham just as it was breaking up.

*September 19*—Patrolled in West Fallowfield, Highland, Upper Oxford, and London Grove townships. Then, after meeting with the defendant from the previous night's case and settling his fine, I headed over to Oxford where I assisted with the instruction of a hunter ed course sponsored by the Outdoor Sportsmen and Farmers' Club.

*September 21*—Started the day by assisting with the hunter education course being held at the Avondale Boy Scout cabin. In the afternoon, patrolled for dove hunters in London Grove, Franklin, and



London Britain townships.

*September 23*—This morning, I wrote and typed my final outdoor column for the local paper. With the demands of hunting season on me and the monthly obligation of the "DGP Diary," I just don't have enough time to continue with my newspaper writing. In the afternoon, dispatched a sick raccoon in East Bradford Township and then delivered a film and slides to one of my volunteer hunter ed instructors in the London Grove area.

*September 25*—Spent the morning patrolling on foot in the Chadds Ford area for preseason archery deer hunters. Little activity noted.

When I finished, stopped at a local general store for a cold drink. While there, I was informed by the clerk that approximately an hour earlier, while on her way into work, she had observed an individual with a shotgun carrying what appeared to be a pair of freshly killed cock pheasants. Although I got to the scene as quickly as I could, I was unable to find any sign of the violator.

In the evening, Deputy Horace Steffy, Maryland C.O. Dave Hohman, and I patrolled along the Maryland/Pennsylvania state line in the Lewisville area. Our efforts paid off as we apprehended a Maryland resident hunting doves in Pennsylvania on a resident Pennsylvania license.

*September 26*—Jacklight patrol is essentially a matter of trying to put yourself in the right place at the right time. Contrary to what many people think, it isn't easy. A poacher has 365 days a year and 24 hours a day to break the law. The enforcement officer has the nearly impossible task of trying to pick the date and time he is going to do it. This morning, Deputy Wayne Swinehart and I staked out a known problem area from about 2:30 a.m. until sunrise. As is typical with this type of surveillance, the hours went by without incident.

*September 28*—This morning, assisted with a hunter ed course sponsored by the Southern Chester County Sportsmen's and Farmers' Association, in London Grove. In the afternoon, patrolled for dove hunters in East Marlborough and Pocopson Townships. Of the gunners I checked, I cited only one and that was for possessing one bird over the daily bag limit.

*September 30*—In the morning, shuffled films between hunter ed instructors in Oxford and London Grove and patrolled throughout the district for pre-season archery deer hunters.

In the evening, attended a meeting with my furtaker education instructors. We will be offering a class in October and wanted to get together to discuss the course agenda and to assign teaching responsibilities.

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**THE GAME COMMISSION'S Outstanding Employees for 1985 were: L. R. "Butch" Camp, management; DGP Dick Curfman, game conservation officer; Hugh Palmer, engineering, scientific and technical; Mike Schmit, first level supervisor; Harold Haas, labor and trades; Mary Wike, clerical-administrative. The late Kermit Dale was named Outstanding Employee in the first level supervisor category. Each received a certificate and a framed "Country Lane Kestrel" print.**



WE STARTED off through the weedfield. I took the right, my father-in-law took the left, and the handler walked between us. Out in front, the dog worked back and forth, a trim flash of brown and white in the frost-burned weeds.

It was the first day of small game season. We were at the Hillendale Hunting Club, a shooting preserve in Blair County's Sinking Creek Valley. We had come to hunt over English springer spaniels, a breed I had heard much about but had never seen in action.

The handler, Tom Crawford, owns the club, which is centered on his family farm and includes several leased properties nearby; onto these 475 acres Crawford releases propagated ring-neck pheasants to supplement the native birds. Crawford is a stocky, genial man who, when it comes time to put dogs on the ground, is as intense and enthusiastic as the spaniels he trains and hunts.

### Windshield-Wiper Pattern

The springer, a female named Jumper, worked her way out to about 20 yards in front of our guns. She quartered from side to side, in a windshield-wiper pattern. Crawford had told us to bring highbase shells—my 20-gauge held 3-inch magnum 6s—because the shots might be long.

This one wouldn't be.

The dog's docked tail wagged furiously as she darted through the golden-rod. Something crackled like electricity at the base of my spine, and I snapped up the shotgun as the pheasant, cackling hoarsely, flushed.

The gun boomed, the pheasant was arrested in its flight, and the world seemed to pause for a moment. Then the bird started to fall and I gave it the second barrel, although with the dog on hand I needn't have. Crawford yelled "Jumper, fetch!" and she raced over to the fallen ringneck, a soft broken rainbow on the ground. She carried it back to her master, who put it in my game pouch. I saw the low,



*Chuck Fergus*

rust-colored mountains again, smelled the crushed autumn weeds, and saw my father-in-law grin. On we went.

The English springer spaniel, as its name implies, comes from England. The general type of dog has been around for something like 500 years. Before the advent of firearms, the breed was used to "spring," or flush, game for sight-hounds and hunting hawks to course or strike down. Somewhere I read that the springer and the English setter share a common ancestry. If I recall correctly, setters came from dogs whose springing instinct was not highly developed. These dogs momentarily froze at the scent of game—rather than dashing in and flushing it—whereupon the hunter threw a net over his quarry. Many of them crouched, or "set," in the presence of game. Ultimately the dogs were bred into a separate line known as "setting spaniels"—setters.

Springer spaniels are close kin to cocker spaniels, and in old England they were one and the same breed. A young dog might begin his hunting career as a cocker and then graduate to the springer classification as he grew and matured. Until the beginning of this century, dogs from the same litter might be sorted by size: the larger pups were springers, the smaller ones cockers. Cocker spaniels were so named because they were often hunted on woodcock.



Springers are much used in England today, especially on so-called rough shoots, where gunners take all sorts of game—hares, waterfowl, grouse, pheasants—which the dogs roust from cover. Perhaps because this sort of hunting approximates conditions in much of America, the springer caught on here as well.

After retrieving my pheasant, Jumper quickly went back to work. She left no patch of weeds uncovered as she quartered back and forth. Crawford had instructed us to walk slightly ahead of him, while the dog scoured the triangle between us. She burrowed under bent weedstalks, stuck her nose into each and every tangle. She kept nicely within gun range, essential for a flushing breed.

The next bit of action did not involve a shot, but it showed the springer's propensity for finding game. The dog scented a trail and scooted into a dense clump of goldenrod: out she came with a broken-winged rooster in her mouth, a casualty from an earlier hunt.

As we neared the end of the field, Jumper flushed a pheasant which my father-in-law bowled over with his second shot. The spaniel "hupped" at the flush—she sat down and watched the bird as it flew—and, at Crawford's command, retrieved the downed bird.

The day was hot and Crawford, not wanting to tax Jumper, went back to the truck and got two fresh dogs, a male, Spanky, and a female, Brcezy. We hunted a long weedfield, raising no game, and entered a strip of standing corn. The dogs darted down the rows, ducking from one row to another, working back toward us when they got too far away.

### Whacking of Wings

The corn strip followed the contour of the hill. A distant *crup-crup* signaled other hunters' shots on game. A pair of doves whistled over, and the breeze brought the excited tonguing of a distant beagle. The sudden whacking of wings against cornstalks riveted my attention. The hen—legal game on a shooting preserve—cleared the stalks and sped away across a weedfield. I slapped the trigger, and the bird collapsed in a feathery puff.

This retrieve was made difficult because the dogs, screened by the corn, hadn't seen the bird get up. They criss-crossed through the weeds until one of them finally scented the bird—killed outright—and brought it to us.

The morning stretched on. A rooster, caught between dogs, hunters, and handler, came up in the middle of things and peeled back over Crawford's head. I was the closer gun, and, after letting the bird get high enough to permit a safe shot, killed it. (I had missed so many grouse in thick cover during the preceding week that this day of hot open-field shooting was doing wonders for my confidence.) A hen flushed behind me, and I spun and took it at 30 yards out; I stared at the spot where it fell, in some picked corn, until Crawford sent the dogs there. A splash of brown feathers showed that the bird had hit and taken off running. The



dogs sniffed back and forth across the bare ground. Breezy finally pushed her nose into a tractor rut and ran down it; 50 yards away, still in the depression, she caught up with the bird.

The last pheasant of the day belonged to my father-in-law, which was only proper because almost everything else had gotten up in front of me. He actually flushed the bird himself, practically stepping on it in the corn stubble. He turned on the bird, a hen, let it go out to range, and shot. The dog

made a swift retrieve, and our hunt was over.

We had seen springers perform competently on pheasants, propagated birds but ones with seemingly wild characteristics. How do they handle other game?

According to Dave Duffey, for many years the Dog Editor of *Outdoor Life*, springers are practical, do-it-all hunting dogs.

They find, flush, and retrieve woodcock, quite at home in the timber-doodles' boggy haunts. (They root pheasants out of such fens, too, where the birds often concentrate when hunter pressure is high.) Springers retrieve jump-shot mallards and wood ducks from the water. They beat the bushes for rabbits. (It is the rare pointing-dog owner who will let you shoot a cottontail in front of his dog; I must admit this gets my goat, as I love the taste of rabbit.) Springers retrieve doves, and they occupy the attention of squirrels while the hunter maneuvers for a shot.

Tom Crawford told me he successfully hunts grouse with his springers. "They head for the thickest cover, get in there, and put the birds out," Crawford said. "They really work hard. I like to hunt grouse in the late season, when the weather's cold and the dogs don't overheat too quickly."

### Running Grouse

I've noticed a recent tendency for grouse to behave more like pheasants: to run away while a pointing dog is locked on point. With a springer, this little bit of chicanery would be for naught. Some hunters are bothered by the thought of using flushing dogs on grouse; for them, the ultimate thrill is a rock-solid point. For others, a flushing dog provides just as much excitement. "There's nothing like seeing a good spaniel quest for and hit bird scent to bring a knowledgeable hunter up on his toes," Dave Duffey writes. "And he'd better be alert. Shooting flushed birds is more of a challenge than taking birds over a point."





Springers are small to medium in size, standing 17–20 inches at the shoulder and weighing 30-50 pounds. They're cute fellows with friendly, cheerful expressions. Most are black and white or brown and white. One of Crawford's dogs had a prominent chestnut-brown blanket that covered her back and extended down her sides; but most of his other dogs had coats with more white than color. Crawford says the darker dogs are the old style, while the lighter dogs—easier to keep track of in thick underbrush—are the current choice.

A springer is an intelligent dog, a quick learner. Its size and winning disposition make it a good choice for a house dog that will also hunt. One thing that impressed me about Crawford's dogs was their intensity, their desire to get into every patch of cover, find every downed bird. Such spunk has a way of winning a hunter's heart, and of putting game on the table.

Back at the farmhouse, my father-in-law paid for our hunt and thanked Crawford for a memorable day. We had seen springers illustrate many of the breed's strong points. They had

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found game and roused it from places where hunters alone might not have put it to flight. They had retrieved shot game, including wounded birds that otherwise might have been lost. They had lent an air of merriness to the proceedings, along with that satisfying alliance of hunting man and hunting dog.

## Books in Brief...

(Order from publisher, not from Game Commission)

**Movin' Along With Charley Dickey**, by Charley Dickey, Winchester Press, 220 Old New Brunswick Rd., Piscataway, NJ 08854, 207 pp., \$14.95. Forty-eight essays on the lighter side of hunting and fishing by a most popular outdoor humorist. "Up in Smoke," "All the Comforts of Deer Camp," "The Awful Truth," and "A Dog-Eat-Bird World" are just a few of the provocative titles. Autographed copies, \$17 each, can be ordered from Bird Publishing, 2230 Monaghan Dr., Tallahassee, FL 32308.

**Modern Waterfowl Hunting** by Don Zutz, Stoeger Publishing Co., 55 Ruta Court, South Hackensack, NJ 07606, 288 pp., softbound, \$11.95. More hunters, less birds, and new restrictions have made waterfowling drastically different than it was only a generation ago. This authoritative volume will help today's hunters accommodate for these changes. Guns and other modern equipment, shooting techniques, and reloading procedures are just some of the thoroughly covered topics. Probably most pertinent is the fact that here, for waterfowl hunters, is a complete guide to success with steel shot.

**ANASAZI: Ancient People of the Rock**, by Donald G. Pike, Harmony Books, One Park Ave., NYC 10016, 192 pp., softbound, \$12.95. Spectacular photographs and an enchanting text vividly capture the culture, the country and the mysteries surrounding the Anasazi—the ancient ones—also known as the cliff dwellers who flourished from 2000 to 1300 years ago in the American Southwest.

# BOWS AND BALLISTICS

By Keith C. Schuyler

**A**RROW SPINE, broadhead weight, penetration capabilities, speed, sighting, etc.—all have importance in bow hunting. But what causes us to miss when all of these, and we ourselves, are in tune?

The answer might simply be—trajectory.

From here on my editor, Bob Bell, is going to be looking over my shoulder, because we usually think of trajectory in relation to the flight of bullets. He and that other fellow in the following column, Don Lewis, are the experts when it comes to firearms ballistics. Looking over my other shoulder, however, is Tom Jennings, who is bowyer for the Jennings line of Bear bows and granted permission for the use of charts on these pages. Tom and I spent some time in the research department of Bear Archery in Florida last spring, after a visit with Fred Bear. Tom has his own research laboratory in California.

## Curved Path

All will agree that trajectory is simply the curved path of something hurtling through space. The dictionary says that ballistics is “the science dealing with the motion and impact of projectiles, such as bullets, rockets, bombs, etc.” For our purposes here, the “etc.” is “arrows.”

Most of us originally used guns for hunting, and the tendency when we pick up a bow for the first time is to think in terms of what a gun can do. Actually, although both trajectory and ballistics are involved, there is little relationship between the two types of arms. An archer is much more involved with stance, hold, release and many other personal physical factors, plus the operation of a bow in action which

makes the arm an extension of ourselves. But we cannot ignore the fact that the projectile, the arrow, once it is on its way, is subject to the same forces that affect the path of a bullet.

The chief difference at that point is in the trajectory of the projectile. A look at Figure 1 shows the comparison between the trajectory of a 170-grain bullet fired from a 30-30 caliber rifle, a gun that has killed more deer in Pennsylvania than any despite its relatively low muzzle velocity of 2200 feet per second (fps). Yet, when compared to a fairly efficient bow with a “muzzle velocity” of 200 fps and driving a 540-grain arrow, there is an astounding difference in trajectory and impact point.

When both projectiles are sent on their way from a level plane, the 30-30 drops only 1½ inches at 50 yards, but the arrow drops 9½ feet. Assuming no imperfections in either projectile, each is affected only by drag and gravity after they leave the arm.

To continue the lopsided comparison, go to Figure 2.

Here we find that a standard 30-06 load gives a 180-grain bullet 2700 fps, a 45-caliber muzzleloader starts a 135-grain ball at 1800 fps, and a 12-gauge shotgun gets a 437-grain slug off at about 1530 fps.

You hear about so many improvements in the primitive bow that “you might as well be shooting a gun.” Well, stay with us on Figure 2 for a moment.





Look at the velocity produced by a modern 60-pound compound bow having a 30-inch draw and shooting a 540-grain arrow. The arrow shuffles out at about 220 feet per second, a velocity nearly identical to that of a 400-grain bolt (arrow) from a 150-pound cross-bow with a 10-inch power stroke.

A commercial slingshot, using surgical tubing for power, sends a 106-grain steel ball off at about 150 feet per second, half again as fast as a pitcher tossing a half-pound rock. A blowgunner, with double-lung power, can huff an 18-grain dart at about 100 feet per second from his tube. Our pitcher might be able to hurl a 2-pound spear at maybe 60 feet per second.

### Far Down the Line

The evolution of arms from the early primitive to today's firearms still leaves the bow far down the line in immediate killing power, despite the improvements since World War II. That brings us to a comparison of available bows legal for hunting in Pennsylvania. Take a look at Figure 3 showing initial velocity of a typical hunting arrow.

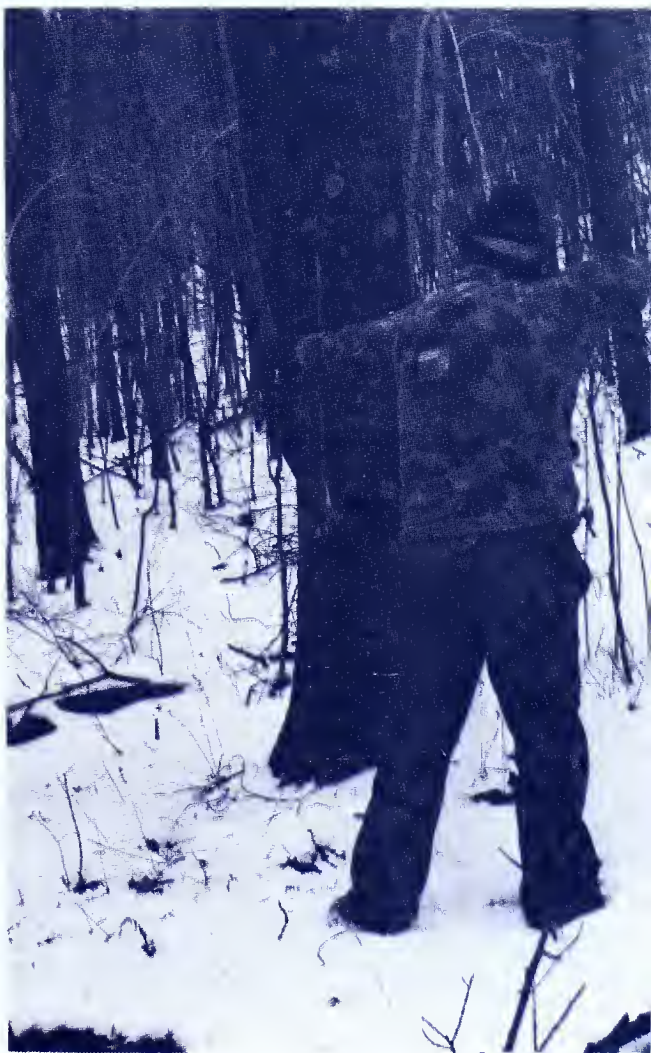
Before World War II, the only readily available bow was the longbow, or straight bow, made popular by the English. The bottom line of this figure shows draw weights, the vertical line illustrates feet per second for the various weights. If we use 60 pounds for comparison purposes, we find that the longbow will deliver about 180 feet per second. A good recurve will jump that to 195 fps. A standard compound will up that to 205, and programmed cams are capable of 220 fps. A 30-inch draw was utilized to arrive at these figures. It is believed that the maximum potential performance for hunting equipment is about 240 fps.

What does all this mean to the average archer?

We won't go into the resultant impact

of an arrow because of the many variables attendant on the size, shape and cutting capability of the various heads on the market. Trajectory provides a more meaningful gauge of an arrow's performance. It is true that a heavier missile will provide greater penetration. But a lighter one will get there faster and thus have less drop. So we are faced with a tradeoff. We can have greater speed with a lighter arrow, and thus flatter trajectory and easier hitting over unknown ranges, but less penetration in a big-game species.

In my experience, a heavy head will do a better job than a light one on big game. But the trajectory of a heavy arrow makes it more difficult to hit a target where desired unless it is at a proper distance for one of the sight pins.



**BOWHUNTERS want the flattest trajectory possible so long as their broadhead arrows are adequate for the task, especially under thick woodland conditions.**

Figure 1  
Comparison of Projectile Drop at 50 Yards

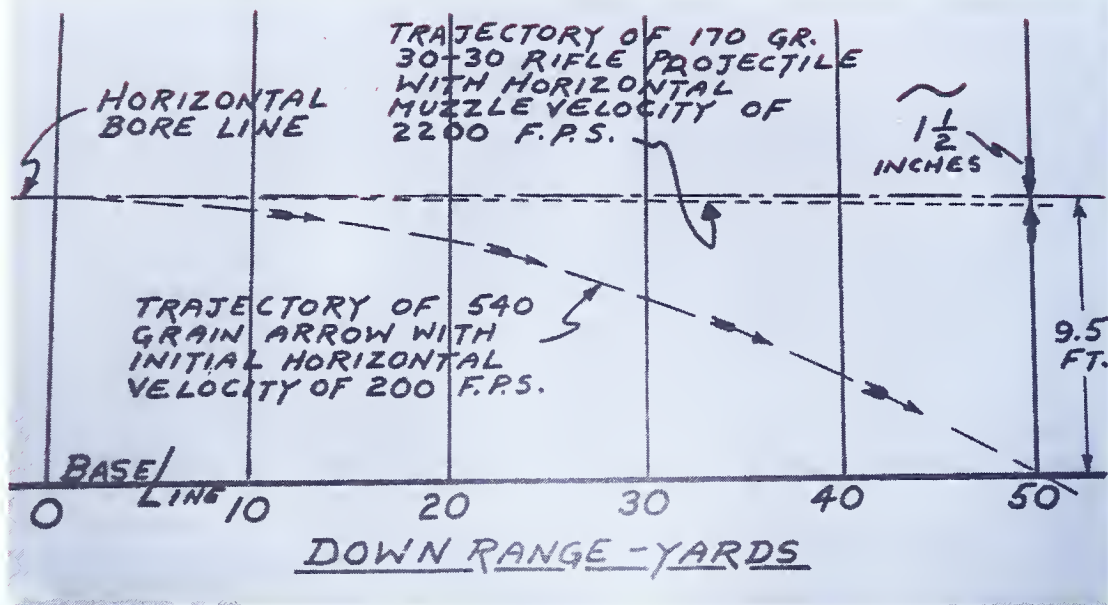
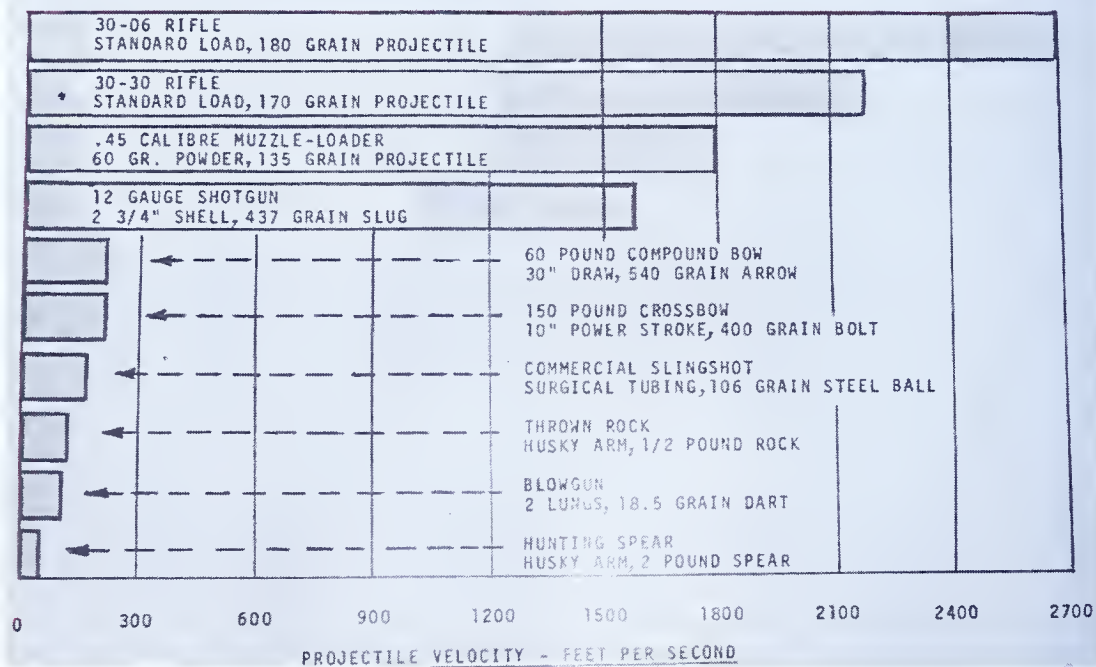


Figure 2  
Projectile Velocity, Feet Per Second, for Various Systems





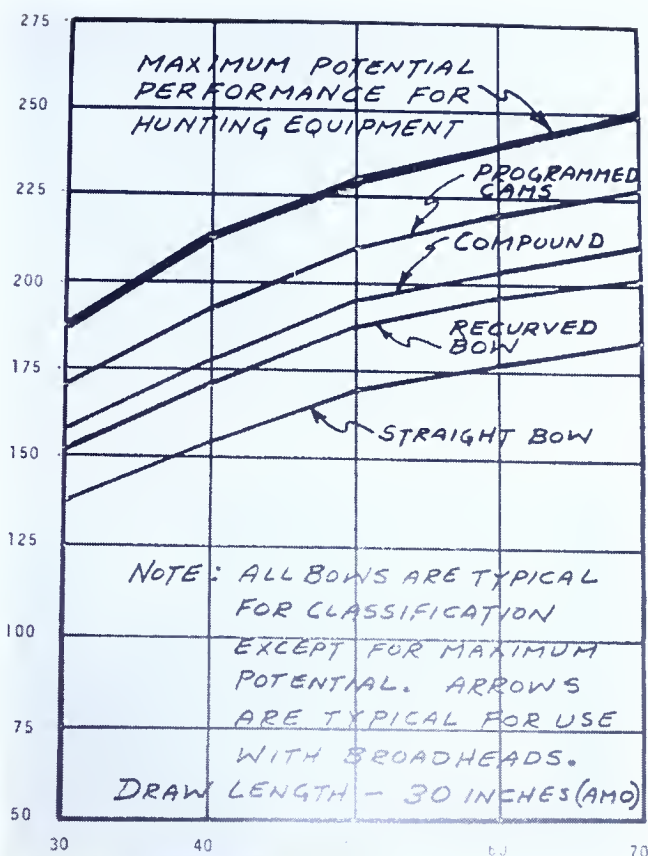
A lighter arrow-broadhead combination is more forgiving of error in range estimation than a heavier one due to the effects of gravity. All other things being equal, we must assume that drag is little different between light and heavy archery missiles, even though it must be reckoned with by comparison.

Regardless, we must recognize that judging distance under field conditions is difficult. In the final analysis, a heavier shaft and broadhead will do the better job—if you can place it on target. But it is axiomatic that the best broadhead is the one you can place in a vital area.

The heaviest arrow-broadhead combination is best when the shooting is close, preferably under 20 yards. That's where most big game is taken with the bow. But with today's improved tackle, most archers who practice properly feel comfortable with shots up to about 30 yards. Some are accurate beyond even this distance. However, the problem is not with shots at customary practicing distances. It arises when the living target is less or more than the estimated distance. The flatter the trajectory, the better the chance of making a clean kill, even if depth perception is off a bit.

In the comparison between the bow and the gun, although each is capable of doing its job, differences in ballistics and trajectory make one thing certain. Despite all that modern science has been able to add to the efficiency of the original bow's basic dynamics, the bow remains a primitive arm. Its limited effectiveness from the standpoint of ballistics and trajectory must be considered by any archer who adopts it for big game hunting.

Those who do so must be aware of its



**Figure 3**

**INITIAL** velocity of a typical hunting arrow, in feet per second, from different types of bows. Arrow velocity has gone up only 40 fps or so in the past 50,000 years.

limitations as well as their own, and judge themselves accordingly. They have the opportunity to opt for the modern adaptation of the ancient long-bow, move up to the more efficient recurve bow, or join the majority who choose among the variety of compound bows that today represent the first departure from basic bow dynamics since the original bow twanged its way into history.

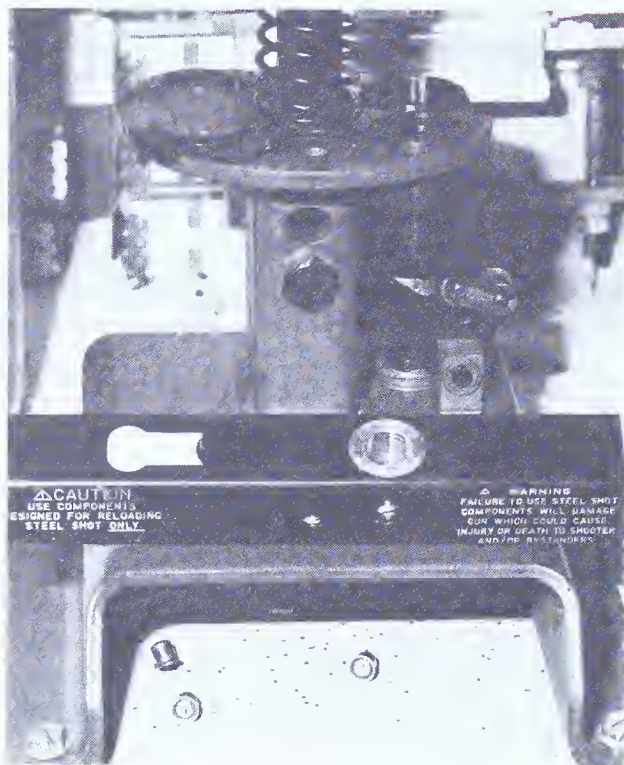
## Correction on Muzzleloader Stamp Deadline

It was reported incorrectly in the August GAME NEWS that sportsmen had until October 6 to purchase muzzleloader stamps. In fact, the deadline for purchasing muzzleloader stamps is September 30. Antlerless deer license applications must be surrendered when making this purchase.

# Another Look at Steel Shot

By Don Lewis

Photos by Helen Lewis



**SHOT CHARGING BAR** on MEC's retrofitted press has a soft insert next to cavity to prevent jamming. Lead shot shears, but steel shot won't, so must be accommodated for.

**T**HE BIG HONKER was coming in my direction, angling from right to left. At 25 yards, I swung the muzzle through the goose and slapped the trigger. Success on the first shot of the season, and with steel shot to boot.

Ten minutes later, two boxcars passed high over my blind and disappeared into the morning fog. Before I

could collect my senses, another Canada was coming in low. It would pass a good 45 yards away. I gave the bird what I thought was plenty of lead and fired twice. The big target never reacted. I was flabbergasted.

Before the morning was over, I had connected on one more close shot and missed a distant target I felt was in range. I started having doubts about steel shot.

If I had known more about steel shot that morning, my score would have been vastly improved.

## New and Confusing

Steel shot is relatively new to the hunting fraternity, and, to many waterfowlers, it's confusing to say the least. Since lead shot is poisonous to waterfowl when ingested, a substitute pellet had to be found. I have no idea how many types of metals and other materials were experimented with, but steel came closest to satisfying the requirements. On the hardness scale between steel and lead, there are metals such as copper, brass and aluminum. It's fair to say steel is not on par with lead ballistically, but it's also not as bad as some waterfowl hunters think.

One major problem with steel is it is much harder than lead and must be manufactured properly to cut down the possibilities of gun damage. Steel shot is fabricated from low carbon steel wire which is ground or rolled into a ball shape. Polishing makes it even more spherical. However, all this work hardens the steel, and a finished ball may test out between 150 and 180 on the diamond pyramid hardness scale (DPH). However, steel shot for reloading, according to Sporting Arms and Ammunition Manufacturers Institute



(SAAMI), should have no more than a 90 DPH. The harder the pellet, the less its compressibility and the higher the chamber pressure, all other things being equal. At the moment, steel shot can not be loaded as easily as lead shot. There are still a host of problems with steel shot that have not been solved. But, with more people and manufacturers getting involved, much of the mystery about steel shot is disappearing.

Weight is another factor. According to various references, iron has a specific gravity of 7.8, compared to 11.4 for lead. This means that a lead pellet of given size designation is approximately two-thirds heavier than one of steel. (Shot pellet diameter is the same no matter what material it is made of; in other words, a number 4 steel pellet has the same diameter as a number 4 lead pellet.) The difference is significant because the heavier a shot pellet is in a given size, the better it maintains velocity and the more energy it delivers at long range. In this aspect, lead is obviously superior to steel. However, because of its greater hardness, steel deforms less during its passage through the bore, thus patterns better and therefore puts more pellets into a target of given size. This could cancel out the apparent energy superiority of lead.

The Achilles heel of steel shot is barrel damage. It takes only one or two

improperly loaded shells to score the inside of a barrel. Actually, the most important component in regard to barrel damage is the shot cup. A steel shot cup is much stronger and made of tougher material than those for lead. In lead shot reloading, the wad is designed to protect the shot; in steel shot reloading, the wad protects the barrel. Never use a lead shot cup for steel shot reloading.

### Thicker Cups

To make this perfectly clear, steel shot must not be allowed to contact the barrel interior. For this reason, shot cups for steel pellets are much thicker than those for lead. Furthermore, steel shot charges should never extend above the shot cup, as they sometimes do in heavy lead loads. Any time a steel pellet rides against the bore, damage will occur.

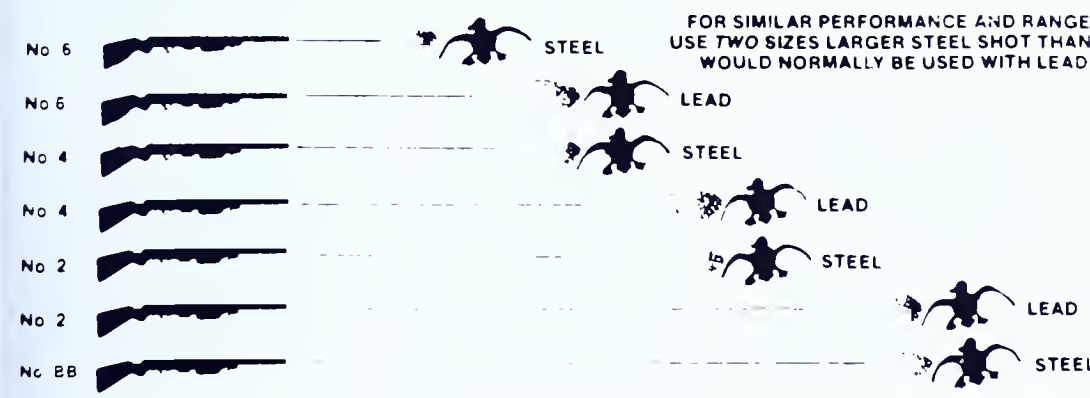
Unlike the lead shot cup which has molded petals with gaps between the petals, the steel shot cup is one-piece with no cushioning posts. The petals in a steel shot cup are slit by the hand-loader using a sharp knife or special device attached to the reloading press. The petals are needed to ensure that the unit banana-peels when it leaves the muzzle and frees the shot charge.

I mentioned earlier about pellet hardness and that steel pellets above 90 DPH should never be used. Lead shot

**BECAUSE THERE IS A significant difference in density between lead and steel, shooter must go two sizes larger with steel for similar performance.**

Tom Roster

## SHOT SIZE IS VERY IMPORTANT



with a good dose of antimony to make it harder reads out at only 30-35 DPH, which is a far cry from steel air rifle pellets that can hit up to 190 DPH. Lead shot is much softer than the barrel and will compress and deform somewhat upon ignition and when it passes through the forcing cone into the bore and again when it goes through the choke constriction. This is not the case with steel. It won't compress to any measurable degree.

### Deformation = Erratic Flight

We know that lead shot deforms or compresses easily. This deformation reduces chamber pressure but it also causes many lead shot pellets to be erratic in flight. As mentioned, steel shot usually patterns better since it does not deform.

The cushioning posts in a lead shot cup collapse upon ignition, the soft plastic material absorbing much of the strain. Naturally, some strain is placed on the barrel at the two points mentioned earlier, but nothing like that from a steel shot charge. Because it lacks cushioning posts and is made of denser plastic, a steel shot cup is less compressible and there is far more barrel strain.

The harder the pellet, the more barrel strain, and this is why ballistic re-

searchers strongly advise against using pellets of unknown hardness or pellets above 90 DPH. The more pellets and the larger the pellets in a shot charge, the less compressible the mass. And the more of them, the more the entire shot charge must elongate to squeeze into the barrel and then through the choke constriction.

For this reason, steel shot should never be fired in old shotguns or even some of the less sturdy ones. It could produce serious problems for the shooter and onlookers.

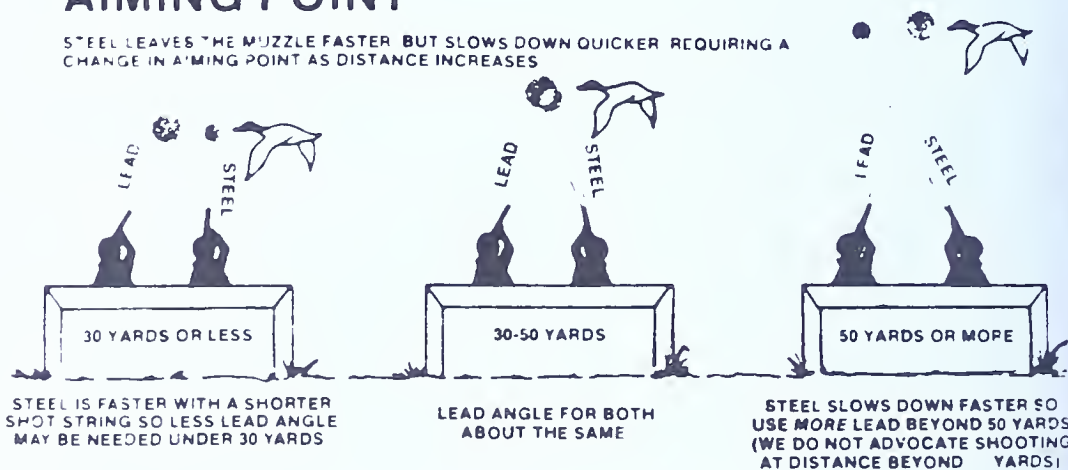
Even with the heavy shot cup developed for steel loads, it's still mandatory to use steel pellets of the proper hardness. One authority states, "There is a popular misconception that it doesn't matter how hard steel shot is as long as it is contained in a properly designed steel shot wad. Those believing this notion do not understand the effect pellet hardness has on choke strain. Steel balls, if harder than the industry accepted 90 DPH standard, if loaded to velocity levels above 1100 fps, and if the shot charge consists of pellets larger than No. BB (.180 diameter) can split even the strongest of shotgun barrels at the choke. As the hardness of the ball increases, choke strain increases. The threshold limit of choke strain which most modern shotguns can withstand is

**STEEL SHOT has a higher muzzle velocity than lead but slows down quicker; therefore, a different shooting technique is required.**

Tom Roster

## AIMING POINT

STEEL LEAVES THE MUZZLE FASTER BUT SLOWS DOWN QUICKER REQUIRING A CHANGE IN AIMING POINT AS DISTANCE INCREASES







that generated by 90 DPH balls. That is why even if a proper steel wad is employed, air rifle pellets, ball bearings, "soft steel balls," peening shot and any so-called steel shot product harder than 90 DPH should never be reloaded."

Now let's take a quick look at other components of the shotshell. To begin with, it should be noted — engraved on one's mind — that anyone assembling steel shot reloads must never vary from the precise instructions set forth in a reliable handloading manual. It just isn't safe to do so.

The case may be of paper or plastic, and may have either a plastic or a paper base, but load specification data for paper bases and plastic base cases may not be interchanged. Compression formed cases with tapered sides should not be used. From what I have garnered, some steel shot cups will not fit properly in the compression type case, and will give extremely high pressures. Use only the cases suggested by the manufacturer of the steel shot being used.

It's also mandatory to use the primer suggested in the loading manual. Primers are not only different in size, but also in ignition capabilities. Slower burning powders need primers with a hotter flash. Some are much hotter than others. This means the primer has to be correct for the powder being used.

Some favorite powders used for decades with lead shot are absolutely unusable with steel. Never substitute powders. Ballistic tests with some of the most popular lead shot powders sent pressures well above 20,000 LUP (lead units of pressure) in steel shot loads. That's far, far above the 9000 to

11,000 LUPs the average shotgun is designed to use. Because of the lack of compressibility of steel shot and the thick steel shotcup, very slow progressive burning powders must be used with soft steel shot.

Another small demon that can cause problems with steel is old-fashioned rust. Steel shot is made of iron, and iron rusts when it gets wet. Some steel shot pellets are coated with a rust inhibitor to protect them against oxidation due to high humidity and rain, but it will not protect them against a good soaking. Waterfowl hunting is many times a bad weather sport, and this means steel shot loads must be water-proofed.

### No Mystery

There's no great mystery to getting the crimp watertight. A few drops of wax or shellac will suffice. Non-water-proofed shells that have been submerged in water should not be used. There is a possibility of the steel pellets rusting together. It's wise to discard any suspect rounds.

Why did I miss the two long shots mentioned earlier? Truth is, I didn't have the correct lead. Steel shot, being lighter than lead, has a higher muzzle velocity. However, it slows down much faster. Consequently, on longer shots, more daylight is needed between the muzzle and the flying target with steel than with lead.

Steel shot is still in its infancy, and there is much we don't understand about it. While it might not be ballistically on par with lead, it is a fair substitute. Down the road a few years, many of the mysteries will have been solved, and it doubtless will be much easier to reload.

For now, we have to learn as much as possible about steel shot and its ballistic advantages and disadvantages. If you load your own, don't deviate from the reloading manual that comes with the steel shot you are using. Steel shot may never completely take the place of lead, but it will turn in a respectable performance if you know how to use it.

# In the wind

bob mitchell



A record 383,500 whitetails were taken in Texas last year. Managers attribute the record breaking harvest to a lengthening of the season (from 51 to 58 days), an increase in antlerless deer bag limits, and a growing realization among hunters and landowners that white-tailed deer need to be better controlled. It was determined that 53 percent of the hunters got at least one deer, and 0.76 deer were taken per hunter.

**New York recently funded 45 projects, out of 143 proposals submitted, with more than \$2.4 million from the state's "Return a Gift to Wildlife" income tax checkoff program.**

Half the sampled cities in Iowa were found to have water systems contaminated by pesticides, according to the Wildlife Management Institute. Although in no instance was a contamination level high enough to pose immediate public health concerns, it was pointed out that effects of long term exposures are not known. Furthermore, one water system contained a short-lived insecticide, indicating how rapidly groundwater pollution can happen.

The National Shooting Sports Foundation recently presented the North American Association of Hunter Safety Coordinators with an award for the outstanding growth and success of hunter education over the years. Since hunter ed was first offered in the late '40s, over 14 million people have completed a course. Today, over 55,000 volunteer instructors in the U.S. and Canada are training approximately 650,000 students a year.

The North Carolina Wildlife Resources Commission has granted its approval to a federal proposal to stock red wolves in the state's 120,000-acre Alligator River National Wildlife Refuge. The approval is contingent, however, on the stipulation that traditional wildlife management and hunting practices be allowed to continue. Red wolves were once common along the southeast coast, but it is believed none exist there today.

After rebounding from near extermination because of pesticides, ospreys in the Chesapeake Bay apparently are being threatened by another problem: overpopulation. As reported in *Virginia Wildlife*, researchers from William and Mary started studying the bay's fish hawks in 1969. Since then they have banded 3500 nestlings and documented an increase from 500 nesting pairs in 1975 to over 800 in 1985. In 1982 they began to notice that nestlings were behaving more aggressively, were not developing normally, and that, in some areas, up to 90 percent died in the nest. Further study revealed that adult males were spending 35 percent more time hunting, and were bringing back to the nests 35 percent less food, by weight, than they did ten years earlier. Adults also were capturing less desirable fish. At this point, it has been theorized that ospreys may have become too abundant, intensifying competition, or that an environmental change is reducing the abundance of their prey.

**The Wyoming Game and Fish Department offers a limited hunt to keep the state's population of 8000 moose stable. One of every 15 who applied for a 1986 permit was selected. In 1985, 970 animals were taken by 1125 hunters, and the state's Game and Fish Department determined that moose hunting that year provided 5500 days of recreation and added \$620,000 to the state's economy.**

Last year the first Canadian habitat conservation stamp and print was offered. The design featured a pair of mallards by Robert Bateman. Over 500,000 stamps and 50,000 prints were sold and, from just print sales, over \$10 million (Canadian) was raised.





*The Wingless Crow*, by Chuck Fergus, is a collection of thirty-three Thornapples columns which have appeared in GAME NEWS. The nearly 200 pages of entertaining reading will appeal to Fergus fans as they reread these selected essays as well as to those who've yet to discover the joys of Thornapples. This top quality hardcover book costs \$10, delivered, and can be ordered from the Pennsylvania Game Commission, Dept AR, P.O. Box 1567, Harrisburg, PA 17105-1567.



## Outdoor Recreation Maps

To help outdoorsmen discover more of what Pennsylvania has to offer, the Game Commission has produced six "Outdoor Recreation Maps." Each multi-color 24 x 36-inch map covers one of the Commission's field regions. Highlighted are Game Lands, State Forests and Parks, and private lands enrolled in the Commission's public access programs. Also depicted are municipalities, roads, waterways, and — giving the map a three-dimensional appearance — 100-foot contour lines. Maps are printed on Tyvek, a tear-resistant, water-repellent material which will withstand years of hard use. Each regional map costs \$4 delivered, and can be ordered from the Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567. If you are not sure of which maps you want, write for a PGC map order form.



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## Voluntary Waterfowl Stamp No. 4

Pennsylvania's 1986 waterfowl management stamp, created by Alabama artist Robert C. Knutson, is the fourth "duck" stamp offered by the Game Commission. Funds derived from stamp sales are used for wetland acquisition, habitat development, and waterfowl-related education. Stamps cost \$5.50 each, \$22 for a plate block of four, and \$55 for a full sheet of ten, delivered. 1984 and 1985 stamps are still available, at these same prices. For additional savings, the cost for five or more ten-stamp sheets, in any combination of years, is \$40 per sheet. The 1984 stamps will be available through December 31, 1986, at which time all remaining supplies will be destroyed.

Stamps are available at the Game Commission's Harrisburg office, regional offices, the Pymatuning and Middle Creek Wildlife Management areas, and at participating hunting license issuing agents and stamp dealers. Signed and numbered fine art prints of this design are available from art dealers and galleries nationwide.



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**COVER PAINTING BY KEN LAAGER**  
(Cover Story on page 13)

## It's a Small Investment

**D**UCK populations aren't what they used to be; they're declining throughout North America. This is no surprise to waterfowlers, as every year seems to bring additional changes designed to reduce hunter harvests. None of these restrictions, however, addresses the fundamental problem affecting these birds.

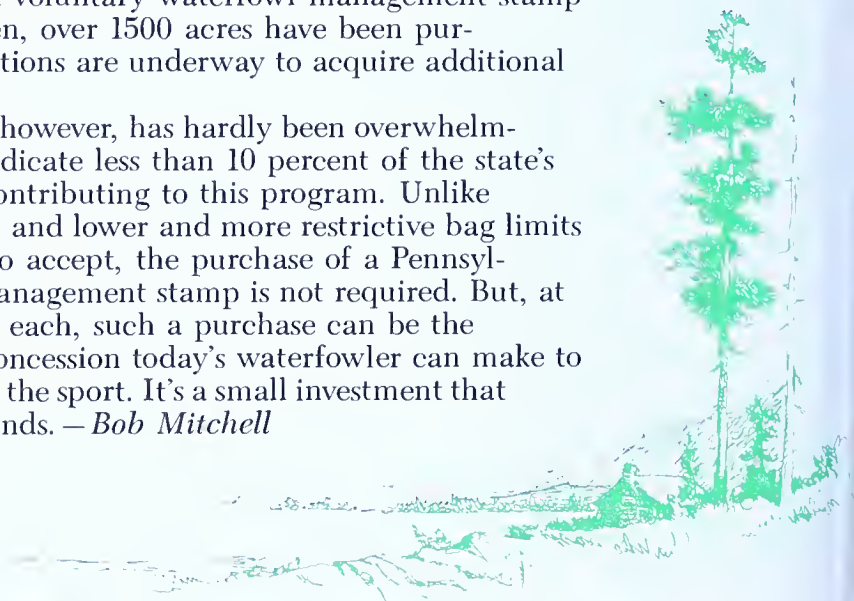
Duck populations have not been declining because too many are being shot. Numbers are decreasing because every year there is less space for them to live. Nesting grounds, migration corridors and wintering areas are all being converted to uses not suited for waterfowl. Consequently, fewer are being born, fall flights are smaller, and not as many survive the winter and make it north to nest.

According to "Wetlands of the United States: Current Status and Recent Trends," published in 1984 by the U.S. Department of the Interior, 200 years ago there were approximately 215 million acres of wetlands in what is now the lower 48 states. By the mid-1950s this was down to 108 million acres and, 10 years ago, only 99 million acres remained. Drainage for agricultural development accounted for 85 percent of the recent losses. Dredging and channelization, filling, flooding, pollution and mining are other important factors. In Canada, where most North American waterfowl is produced, the same trends are occurring. The Wildlife Management Institute recently reported that grasslands in western Canada are being converted to cropland at an annual rate of 2 percent.

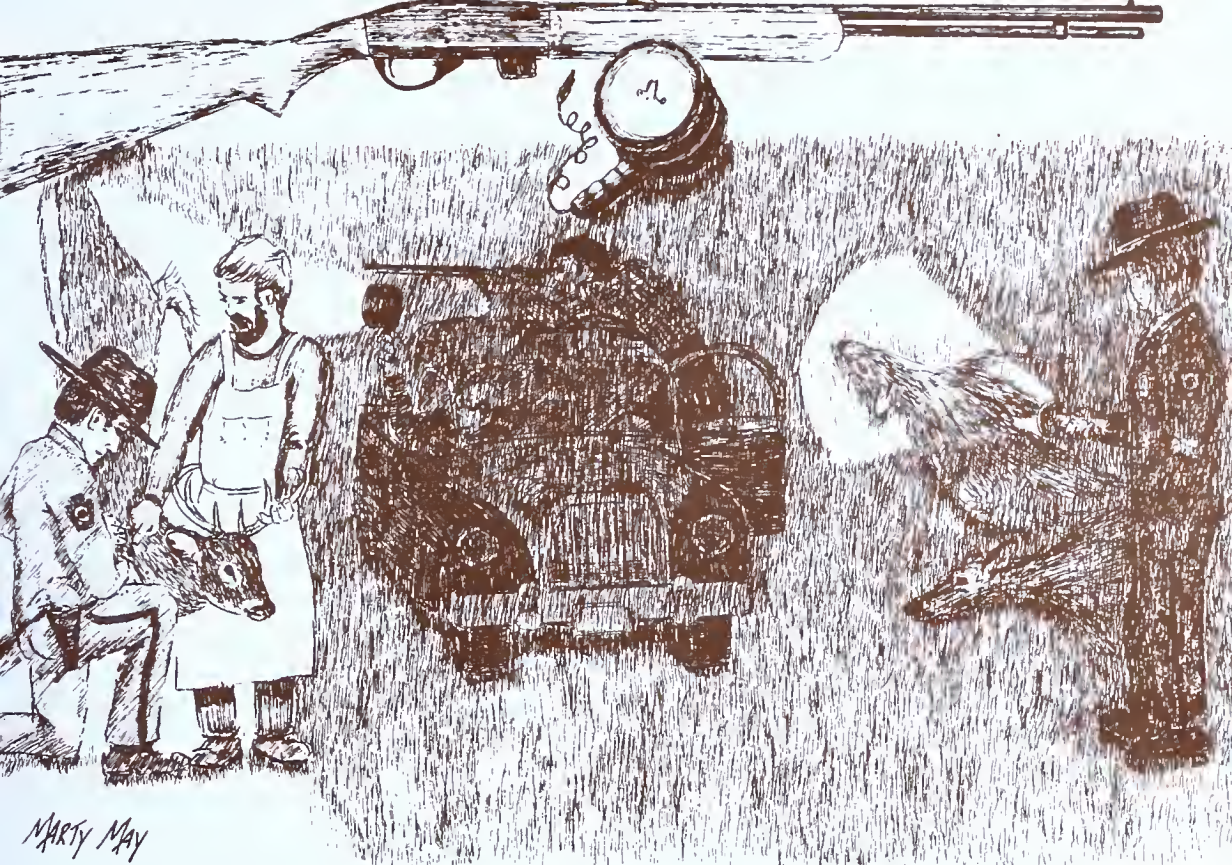
Hunting regulations are relatively easy to enact, and they undoubtedly have an effect, but significant improvements can be made only through stringent land use regulations and wetland acquisitions. Numerous federal and state laws have been passed in recent years to protect wetlands, but losses are still happening throughout the nation. And, because pressures to develop or convert existing wetlands are bound to escalate, it will become increasingly difficult to enact or enforce protective regulations in the future. Acquisition, therefore, is the best solution to the problem of declining waterfowl populations.

To provide more waterfowl habitat in Pennsylvania, in 1983 the Game Commission launched a voluntary waterfowl management stamp program. Since then, over 1500 acres have been purchased and negotiations are underway to acquire additional tracts.

Hunter support, however, has hardly been overwhelming. Stamp sales indicate less than 10 percent of the state's waterfowlers are contributing to this program. Unlike the shorter seasons, and lower and more restrictive bag limits hunters have had to accept, the purchase of a Pennsylvania waterfowl management stamp is not required. But, at a cost of just \$5.50 each, such a purchase can be the most worthwhile concession today's waterfowler can make to ensure the future of the sport. It's a small investment that will pay big dividends. — *Bob Mitchell*







# One Deer, Three Deer...

By Barry Hambley

DGP, Sullivan County

**O**CTOBER brings splendor to the Endless Mountains. It also brings the hunter in search of game. During one October a few years ago, I was hunting hunters. Night hunters, that is. In the first week of archery season it is common for conservation officers to check area butcher shops to keep abreast of the harvest in specific parts of their districts. It was during one of these visits that the hunt began.

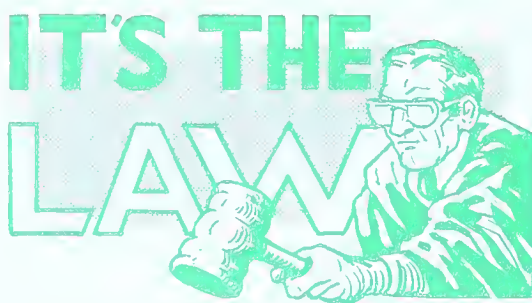
The date was October 6, 1982, when I stopped at a butcher shop in my district. One of the owner's helpers was working on a fine 8-point. When he came across an area of large clotting, he asked if I would examine the deer. I knew immediately what I would find.

Excising the area, I discovered a 22-caliber bullet.

The owner entered the shop at about the same time. I removed the tag from the animal and advised him that I was seizing the animal as evidence. The tag bore the name and address of a Philadelphia man.

The shop owner stated that two individuals had brought the 8-point in that same morning. He also said the two men had brought another deer in on Saturday and one on Sunday. I examined those tags and removed them from the heads for evidence. Appropriate evidence was seized for later examination.

The butcher gave me a description of



### Question

Am I required to let a landowner see my hunting license if I am on his property?

### Answer

Yes. Not only do good hunter-landowner relationships and courtesy require this, it is also required by the Game Law.

the two men and also of the vehicle they had been driving, a two-tone pickup. He thought they might be staying at a campground about ten miles away.

It was close to 3 p.m. when I headed there. When I reached the area, I stopped to interview a complainant who had reported some night shooting. This person did not have much information other than he was sure the shooters were driving a two-tone pickup. It matched the description the butcher had given me.

I made a swing past the campground, but could find no two-tone pickup truck. I patrolled the area through the night, but everything was uneventful.

### 22-Caliber Bullet

In the morning I called neighboring officer Ed Gallow for assistance. When Ed arrived I filled him in on the information I had already gathered. He and I returned to the butcher shop to examine the two deer brought in Saturday and Sunday. Ed discovered a 22-caliber bullet in each head. They were of the same type removed from the 8-point.

It was after 10 a.m. when we arrived at the campground. A two-tone pickup was parked in front of a camp-

ing trailer. Ed approached the trailer from the side while I covered his approach so I could have a clear view when the door was opened.

When a man came to the door, Ed identified himself and asked the man to step outside. Another man came into view and also was asked to step out. They identified themselves as Harry Myers and Ralph Barnhart.

### Incriminating Statements

We advised them of our suspicions. Both denied any illegal activities but did state they had been hunting for the past couple of days. Ed took Myers into the trailer to interview and I talked with Barnhart in my vehicle. He continued to deny any Game Law violations, but after questioning him for a short period I was sure he was involved with the three deer taken to the butcher shop. Then Ed came out of the trailer and indicated Myers had also made incriminating statements.

Myers unlocked his truck and removed from behind the seat a 22-caliber semiautomatic rifle. A number of fired cartridge cases were retrieved from the floor of the truck, and a spotlight from the seat. Two knives also were found. They had been cleaned, but not good enough. In the glove compartment Ed discovered five deer tags belonging to other people.

Barnhart said he had three deer tags in his wallet, and produced them.

During further questioning we learned that a man staying in a nearby trailer was also involved. This individual was a police officer in a large city. He answered the door when I knocked. I identified myself and advised him of what I had been told. He admitted to having two tags belonging to other people in his wallet. Under further questioning, this man said he had planned to use the tags only if he killed a deer with the bow, even though he admitted to carrying his service revolver afield.

Ed and I decided the investigation was growing and we would need additional help. I had called DGP Bill



Bower the night before and advised him of our plans for the next day. He agreed to be in the area in case we needed backup. But when I called for Bill, he was involved in another investigation and could not respond. I radioed division headquarters and requested backup from the Dushore barracks of the Pennsylvania State Police. As always, they responded immediately and sent two officers, Criminal Investigator Tom Biggar and Corporal Michael Selgrath.

Officer Biggar and I continued interrogating the police officer, trying to establish his overall involvement in the violations. DGP Gallew took Harry Myers to the scene of the killing of the three deer we had, while Corporal Selgrath continued questioning Ralph Barnhart.

After awhile, the police officer told Biggar and me that he would plead guilty to being in possession of two deer tags belonging to other persons. There was nothing at this point to prove any further involvement with the others or that he had been along when the killings of the three deer took place.

When DGP Gallew returned with Myers, we placed him and Barnhart under arrest and transported them to Magistrate Francis McCarty's office in Forksville. On the way, Myers' name kept jumping around in my mind. I suddenly remembered an outstanding arrest warrant for him.

Myers and Barnhart were charged with killing three deer at night with an artificial light and a 22-caliber rim-fire. Both pleaded guilty. As a result, a 22-caliber rifle, two knives, a spotlight and a quantity of 22 ammunition were confiscated at the arraignment. License tags belonging to the other people were seized. These persons were later charged with lending license tags to another person. All pleaded guilty.

I thought that finished this investigation, but when I arrived home there

was a message from a landowner in the same area where the deer had been killed. He had found two deer lying in one of his fields. Investigation revealed that both had been shot with a 22-caliber firearm. A fired case was retrieved from the road and the bullets were removed from the carcasses. Ballistics examination revealed that both deer had been shot with the rifle we had just confiscated. The two men were again charged. Myers pleaded guilty and Barnhart pleaded not guilty. Barnhart was found guilty of killing one of these two deer.

### Fines

All in all, Myers paid over \$1000 in fines and Barnhart over \$800. The police officer paid \$50. He was also charged with one deer violation but was found not guilty.

The ten persons whose tags were in the possession of the three men did not even hunt themselves.

Statements were also made that a large freezer had just been purchased to be filled with deer. We'll never know how many deer were wounded and managed to get away, but we believe at least seventy rounds of ammunition were fired.

Night hunting continues to take a heavy toll on the deer herd in this state. It has been stated by knowledgeable people that the illegal deer kill could be as high as 80,000 animals each year. For the conservation officer, these are crimes that have no reasonable explanation.

This is a true account of the investigation of several Game Law violations in northeastern Pennsylvania. The names of the officers are real. The names of the violators have been changed. Therefore, the names Harry Myers and Ralph Barnhart are fictitious here.



Mr. Coever



# Gunning for Ducks on Presque Isle Bay

By Kenneth Young

THE MOON scarcely gone. I leaned back against the cracked and faded gray boards of the old duck blind. The shanty had weathered many seasons already, but was still stout enough for yet another. The gulp of an anchor followed quickly by the resonant smack of a decoy landing flat against the icy bay waters were the only sounds that pervaded the stillness. Gulp . . . smack. Gulp . . . smack. Repetitive as a broken record, yet perfectly orchestrated music to my ear. The sweetness of pipe tobacco and the sharp aroma of steaming black coffee blended perfectly, I thought, in the cold dry morning air. It was a special time. One that all those who love the outdoors could appreciate. In the early morning solitude it's easy to reflect on past experiences and ponder those still to come.

From far overhead, hidden in the darkness, comes the distinct utterances of Canada geese on the move. Coming or going, I couldn't be sure. The breeze picks up gently, brushes across my face, then stirs the dry brown cattails that wade the shallow bay behind me. I shiver—slightly from the cold, mostly from anticipation. The dark sky grudgingly begins to give way to faint light from the east. I hear the whistling wings of a goldeneye flock long after they have passed. Now the wind begins to rise from the northwest. Worried, a pair of mallards begins calling back and forth. I sense the urgency of their high

pitched tones. Unsettled, they jump from the cattails to search for a more peaceful repose.

As the sky lightens I unzip my 12-gauge from its case. It's cold, I realize, as my fingers stick to the trigger guard. Finished setting the decoy spread, Mark and Ronnie, my two longtime hunting companions, move into the blind. The three of us watch in amusement as a tiny grebe dances like a miniature boxer around each decoy. They bob, he weaves. Finally, either frustrated at finding no takers or simply intimidated by their numbers, he sinks beneath the surface and is gone. To the west ghostly silhouettes of whistling swans move parallel with the lines of light in the sunrise.

## Enormous Flock

Someone points and we silently watch an enormous flock of bluebills lift off the bay. A full minute passes before they are all in flight. Like an accordion they move apart and come together in unison into an almost opaque mass. A tiny flock of buffleheads materializes behind us. Low to the waterline they fly well beyond our lead decoy. Then they come around sharply, zigzag back and land as a tightly knit group in the cup of the inverted J-rig. Our attention turns quickly back to the airborne bluebills. Almost arbitrarily, it seems, smaller groups begin to peel off from the main flock. Some this way, some that way, some our way. It would be a good day of duck hunting on the bay.

Ask any knowledgeable western Pennsylvania hunter where the preceding scene is set and chances are he'll tell you it's on one of the great bays, Hudson or Chesapeake. Tell him it takes place every autumn in virtually his own

backyard and he'll likely tell you your head's full of keystones. But it's true. While all western Pennsylvania hunters know they are blessed with an abundant whitetail deer population, and that the area's small game hunting is hard to beat, few realize this end of the state's rich waterfowl heritage.

Lake Erie is on the western fringes of the Atlantic flyway. Each autumn, ducks and geese by the thousands lift off from summer nesting grounds in Canada and head south across the lake. Large numbers annually sojourn on the numerous inlets and lagoons that comprise Presque Isle State Park. Geographically, it's quite simple. The park is located on the city of Erie's northern boundary. A finger of land juts out a short distance from the main landmass, then bends sharply to the northeast and parallels the shoreline for approximately five miles. This peninsula forms a large breakwater that envelopes the bay. After a long journey across the lake,

the bay siphons thousands of ducks, geese, swans and other waterfowl into its natural refuge. Certainly, one needs not be a hunter to be stirred by the sight of huge flocks of waterfowl moving along the lakeshore and across the bay.

Years ago the Pennsylvania Bureau of State Parks set up a fair and sensible system for allocating the hundred or so blind sites established there. The system works in this way: First, you must have a valid Pennsylvania hunting license and a federal migratory bird hunting and conservation stamp. These duck stamps, as they are most often referred to, are issued by the U.S. Department of the Interior and can be purchased at any U.S. Post Office. You may enter a lottery. If your name is drawn, you get to select a blind site. Selections are made in the order names were drawn. Each hunter is responsible for erecting his own blind prior to the season. He's also responsible for taking the blind down by a specified date. Failure to comply with any of these stipulations will result in a fine and loss of hunting privileges on the area. Those not lucky enough to have their names drawn have two other options. First, anyone may hunt from a blind that is not occupied by the owner by a specified time in the morning of each hunting day. Second, hunters can hunt from a duckbox.

### Puddlers and Divers

The list of ducks that pass through the Presque Isle area during the fall migration is fascinating. In middle and late October the puddle ducks—mallards, blacks, woodies and teal—are common, and all are wonderful table fare. A good number of mallards and blacks remain throughout the season, spending most of their time in the dense protected lagoons. As the season progresses and the frigid Canadian frontal systems push across the lake, large flocks of diving ducks begin to move in. The most common divers to the area are bluebills (scaup), canvasbacks, redheads, goldeneyes, mergansers and buffleheads.

The ability to identify ducks in flight



**WE MOLD AND PAINT all of our own decoys, and we design and mold the anchors. Although painstaking work, this has saved us hundreds of dollars over the years.**



is especially important in this area because of the many species that can be found here. The strict bag limits put on those species currently suffering diminished populations, such as red-heads and canvasbacks, make positive identification a must. Furthermore, it's senseless and unsportsmanlike to down a duck with no intention of putting it on the table. Wildlife was never intended for target practice. Finally, as pitiful as it might sound, I have seen some shoot at whistling swans, herons, loons, grebes, and even kingfishers, none of which is fair game. A single canvasback, possibly the finest of all table ducks, is worth the price of a *Peterson's Field Guide* and the time it takes to learn proper identification. Some of the more uncommon ducks in the bay area that we have either sighted or downed are the ringneck, spoonbill, oldsquaw, ruddy, pintail, gadwall, scoter and wigeon. Coots come by the thousands.

The bay's moods are generally governed by the weather. It can change from tranquil to brutal in minutes. There have been times in late November and early December when we were clad in short sleeve shirts while the only things that flew by were sailboats and waterskiers. Here's a tip: Good duck hunting rarely coincides with good waterskiing. On the other hand, there have been those days when gale force winds pushed the windchill way below zero and the water right out of the lake, across the peninsula and into the bay. And, occasionally, there have been days when we could have dressed in blaze orange top hats and trenchcoats, stood on top of the blind and waved our arms and still not been able to keep the ducks out of our decoys. Knowledge and respect for how quickly nature can turn on you is imperative when you're hunting open water, especially because the worst weather conditions and the best duck hunting often go hand in hand.

Equipment needs vary. Technically, a boat is not always necessary because some blind sites are next to shallow

water where a hunter can wade out to place his decoys. Ethically, though, a boat should be available for retrieving crippled ducks. Even the best dog is no match for a crippled canvasback, bluebill, or redhead. These speedsters can be halfway across the bay in a matter of minutes. Warm, waterproof and camouflaged clothing and hip boots or waders are, of course, essential. Binoculars, thermos, a catalytic heater, spare gloves, socks and bootliners are items that can make the most miserable days bearable.

### Bluebills and Canvasbacks

Kinds and numbers of decoys are purely a matter of personal preference. Our spread consists primarily of bluebills and canvasbacks because these are the ducks we want to attract. We're never without a few black ducks, mallards, buffleheads and geese, though. If hunting has been poor and/or the weather is nice, we'll lay out as few as two dozen decoys. When conditions dictate, we'll put out well over a hundred to compete with the large rafts of resting ducks. We mold and paint all of our own decoys, and we design and mold the anchors. Although painstaking work, this has saved us hundreds of dollars over the years. Even though most decoys offered commercially are good, they are also expensive. Another thing to remember, like calling a turkey or tracking a whitetail, setting an effective decoy rig is an art. It takes time and experience and certainly a fair share of trial and error. Study several of the good articles or books that have been written on the subject.

A few years ago Ron and I were hunting a prime point blind in the Thompson Bay area of Presque Isle. We had five or six dozen diver decoys set out and there was no action at all. Far behind us, in one of the small inlets, we had been watching pairs and small flocks of mallards and blacks circling. We picked up our rig, scooted back there and set our four black duck decoys. We had our limit in an hour. The point is that more does not always

mean better. Before picking a blind location on the bay, find out which sites provide the best puddle duck action and which are best for divers, then outfit yourself accordingly.

Although it might seem out of context, it should be mentioned that even though there are quite a few deer on the peninsula, no whitetail hunting of any sort is permitted there. Several times we have seen deer cross the ice on Thompson Bay. And about five years ago we witnessed what I consider a freak of nature. We were driving off the peninsula when we saw a buck standing by the road. It was a small one, but it had a huge rack, one that looked like it belonged on a bull elk. He posed there for a long time, but we couldn't count all the points. We ended up agreeing on something around 20, but to this day I swear there were more. Maybe that's why many think duck hunters are crazy. It's bad enough that we run outside at 3 a.m. in our underwear to see which direction the wind is blowing, or that we opt to go duck hunting on the open-

ing day of buck season. But can't you just imagine the conversation after such an occasion:

"Well, how was the duck hunting?"

"Gee, we didn't see many ducks, but we did see a 20-point buck."

There are many reasons why I am drawn so passionately to Presque Isle year after year. Not only is there the veritable collage of waterfowl, but there is also the sense of accomplishment in pitting myself against both the elements of nature and a most worthy and fleet-winged opponent. The solitude of the early morning, the anticipation when a flock of ducks suddenly veers straight for the decoys, and the exhilaration when they cup their wings on a final approach, make waterfowl hunting unequaled so far as I'm concerned. There is more than just whitetail and small game hunting in western Pennsylvania. And who knows—maybe the next time you're sitting in a blind on Presque Isle Bay and the action is slow, you might just get up, look behind you, and see this little deer with . . . Okay, forget it.

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# A DIFFERENT VIEW OF THE BUCK HARVESTS

By Bill Palmer

PGC Wildlife Biologist

**P**OTTER COUNTY has long been the deer hunter's mecca in this state. It consistently garners the top position in the annual rankings of county deer harvests. Tioga, Bradford, McKean and Clearfield are nearly as renowned for whitetails, as these counties typically rank in or near the top five. But is it correct to assume a hunter has a better chance of bagging a buck in one of these counties than in any other? Not necessarily.

## Additional Factors

The hunter who's trying to better his odds in the deer woods would be wise to consider several additional factors before selecting a county in which to hunt. For the purposes of this article, buck harvests will be used to explain these factors, but the same principles also apply to antlerless deer hunting.

First, county rankings—and reputations—have been based on reported deer kills. Not every hunter who bags a deer reports it, however, and there's a significant difference between the number reported and the number taken. Actual kills are calculated by using reporting rates. A reporting rate is nothing more than the percentage of hunters who get deer and report them. This is determined by cross-checking report cards submitted by hunters against information Game Commission personnel gather in the field, around camps, and in meat processing plants. These specialists examine about one of every ten deer taken in the antlered and antlerless seasons.

A reporting rate is found for each county. Perhaps surprisingly, these vary substantially. For example, in 1985 Crawford and Elk counties had re-



**ED HAINES**, Northampton, right, and his friend **Charlie Boyer**, with Ed's fine 9-point taken in a Monroe County swamp. Deer dressed out at 182 lbs.

ported buck kills of 1332 and 1330, respectively, a difference of only two deer. We learned, though, that 61 percent of the hunters who took a buck in Crawford County reported it, but only 49 percent of those who took one in Elk County sent in their report cards. Applying these rates to the reported figures, we determined that 2183 bucks were taken in Crawford County, 2714 in Elk, a difference of 531.

A comparison of the top ten counties according to reported and actual deer harvests (Table 1) illustrates how report-

ing rates affect this relative listing. Although eight of the top ten counties according to reported harvests are still in the top ten based on actual kills, the rankings of most have changed. For one reason or another, a smaller percentage of successful hunters in the now higher counties report their kills.

**Influencing Factors**

The size of a county and its forested area are other factors that influence the number of deer taken in it. It's easy to understand that if, with all other factors being equal, one county is twice as large as another, the number of deer taken in it will be twice as high. A county's amount of forested acreage influences harvests in the same manner. If one county has more forested acreage than another, the number of deer taken in it will—again, with all other factors being equal—be proportionately higher. The ten counties with the most forest land are Potter, Lycoming, Clearfield, McKean, Centre, Clinton, Tioga, Elk, Warren and Bedford. Six of the top ten counties, based on reported kill, and seven of the top ten according to calculated kill, are in the top ten counties with the most forest land.

To take county size and habitat factors into account, buck harvests can be expressed in terms of number taken per

square mile of forest land in a county. Such an adjustment, Table 2, presents an entirely different picture. It's apparent that the reputations of some counties as top deer producers rest primarily on their sizes and the amounts of deer habitat they contain. Only Bradford is in the top ten of both categories—calculated buck harvest and buck kill per square mile. See the accompanying map for the buck kill per square mile for each county.

The amount of public land in a county also affects buck harvests. Counties with large amounts of public land attract more hunters than those where public hunting opportunities are more limited. If we knew the number of hunters in each county, we could express this factor in terms of the percentage of hunters who get a deer, a success ratio. Except for the antlerless deer season, however, we have no quantitative measure of hunting pressure on a county basis. Without this information—which currently isn't needed for management purposes—we can only suggest that large counties with ample public hunting grounds have high deer kills at least partly because they attract a relatively large number of hunters. This means, to some extent, that an individual's chances in these areas might be no better, and might actually

**Table 1**  
**Pennsylvania's Top Ten Counties**  
**According to Reported and Calculated**  
**Buck Harvests, 1985.**

<i>Rank</i>	<i>By Reported Buck Harvest</i>	<i>By Calculated Buck Harvest</i>
1.	Potter	Potter
2.	Tioga	Centre
3.	Centre	McKean
4.	Bradford	Bradford
5.	McKean	Tioga
6.	Luzerne	Clearfield
7.	Lycoming	Warren
8.	Schuylkill	Lycoming
9.	Clearfield	Huntingdon
10.	Somerset	Schuylkill

**Table 2**  
**Pennsylvania's Top Ten Counties**  
**According to Buck Kill Per Square Mile**  
**of Forest Land, 1985.**

<i>Rank</i>	<i>By Kill Per Square Mile</i>
1.	Berks
2.	Washington
3.	Bucks
4.	Northampton
5.	Montour
6.	Columbia
7.	Jefferson
8.	Lehigh
9.	Bradford
10.	Lebanon







# Lunch Bucket Squirrel

By Paul A. Matthews

**B**ACK DURING the Depression years, we looked at things a lot differently than we do today. We were frugal people, scrabbling in a harsh world that demanded the utmost. Just opening our lunch buckets in our two-room country school became a matter of pride during the hunting seasons. Kids measured each other and their parents by the game that came out of the lunch bucket. Breast of grouse or pheasant garnered a top position, and fried leg of rabbit was nothing to be ashamed of. Those who brought squirrel, however, were low on the totem pole. Anyone, it was felt, could get squirrels with a shotgun.

"But I don't use a shotgun," I said. "I use a rifle—a 32 rimfire!"

I said it loud enough so they could all hear, particularly the new girl whose family had just been sheriffed out of their home in Hornbrook and had taken up residence in an abandoned chicken coop. And after they had heard me, they went back to their lunch and the shrill banter of the noon hour.

Still, it rankled. I always shot my

**I HID MY squirrels under a low thornapple and headed south across the fields with a new spring in my step and the feeling of hunger replaced by satisfaction and excitement. What I wouldn't give to go back and relive those next few hours.**

game with a rifle, and Ma could fry squirrel like nobody else in the neighborhood. It ought to count as much as a rabbit or maybe even as much as a ringneck. But it didn't; rules were rules.

I tore at the leg savagely and then felt my face go hot when I noticed the new girl looking at me. Her hair was dark, tied close with a ribbon, and her face was sprinkled with freckles. I've lost track of her over the years, but I'll never forget the look on her face when she suddenly realized that I had noticed she didn't have any game in her lunch pail—not even squirrel.

"Ma," I said that night after supper, "I've got to get up early tomorrow."

She looked across the table at me,





eyebrows arched like humped caterpillars. "We get up early every morning," she said.

"Tomorrow's different."

Saturday morning was ushered in on blazing shafts of sunlight coming through the trees on the rim of the Buckhorn. Motes of frost floated in the air, blinking like bits of crystal when the sunlight hit them just right, and underfoot the withered grass was whitened and the leaves crackled like cornflakes. It was a perfect day, and as I went up the orchard hill and around the end of the hedgerow, I eared the hammer back, opened the breech block of the little Remington No. 4, and slid a stubby 32 long into the chamber.

I carefully worked the length of the hedgerow, hoping to spot a rabbit crouched tight against a stump or huddled in a tuft of weed. But if one was there that morning, I failed to see him. Later, as I worked up the hill toward the treeline, a rabbit darted from a clump of goldenrod. I longingly followed him as he streaked away, my finger caressing the trigger and my brain willing him to stop within sight. But he was quickly lost in a briar patch, and I eased the hammer back to half cock.

Up on the side of the hill, I sat down with my back to a massive oak and snuggled into the depths of my oversize jacket, trying to hold the warmth as long as I could. The woods had gone dead quiet as I came in, yet I knew a dozen pair of beady eyes were probably looking at me from the sides of the trees and lofty places above. But to me, right then, the woods appeared empty.

### Patience

Any squirrel hunter worth his salt knows the meaning of patience. You sit there like a stone while the chill seeps into your body. Your eyes scan the crotches and limbs overhead, and your ears strain for the sound of rattling leaves. After just so much of this, you start to hear noises where there is no sound and you start to see squirrels where there's nothing but fluttering leaves or maybe a small bird on a hemlock tip. But you continue straining your eyes and ears, conjuring up a vision of a gray squirrel working up the hill toward you or easing his way over the crotch in the oak to get a better look. And then, when you least expect it, there's a big old bushytail moseying along a log only a dozen steps from you—so close your pounding heart

sounds like the drums of the Congo, so close you can't make a move without being spotted. You don't know where he came from and you don't care. All you do know is that you're not going to get a shot. He's too close and he's not going to stop.



**I NOTICED THE new girl looking at me. Her hair was dark, tied close with a ribbon, and her face was sprinkled with freckles.**

I had learned patience by that time. I let the squirrel go by until I felt sure I was outside the periphery of his sight. Only then did I raise the little rolling block, earing the hammer to full cock as the stock touched my shoulder. I tracked the squirrel with the sights, trying desperately to hold steady on that head that bobbed and jerked like a puppet on a string. But it was no use. The squirrel made his way down the hill, darting here and there, occasionally digging in the leaves for a nut. He never held still for the few crucial seconds needed for a certain head shot.

Other squirrels came and went, and I soon forgot about the cold that was eating at me. Experience had taught me that for every squirrel I got a shot at, I was going to have to pass up five or six others. After the fifth critter had

gone by me without so much as a nod, I knew my turn was getting close.

I spotted him in a tree—humped up on a limb of a big oak, maybe forty feet up. How long he'd been there, I don't know. But one thing was certain, he knew where and what I was, and he'd frozen himself on that limb, probably thinking I'd never see him.

At times like that, I don't get excited. I rivet my eyes on the game while the little rifle comes up naturally like an extension of my arm. With elbows anchored over my knees I seek out the "V" in the rear sight and drop the tip of the front sight into it. It's the most natural thing in the world to do. When the sights are aligned on the squirrel's head—hardly bigger than a walnut—I press the trigger.

Spang! The squirrel tumbled and I had my first one of the day.

That one made me feel good because it was still fairly early in the morning. I had plenty of time to get five more and attain the record I had set for myself that day, which was two more than I'd ever got in a single day. Things just didn't turn out that way, though. Come 3 o'clock, when the sun was edging toward the mountain on the west side of the Susquehanna, I had just three. With the reluctance of an empty-handed kid leaving a candy store, I headed down off the Buckhorn, hungry and a bit disappointed that I hadn't been able to do what gnawed at my soul.

### Depended On Me

At the foot of the hill I stopped and looked at my squirrels. Two good meals for Ma and me, and lunch bucket fare for two, maybe three, days. I couldn't give them away no matter how badly I wanted. Ma depended on me, and she was the one who had bought the box of ammunition for the little 32. Nope. I started across the fields knowing the squirrels had to go home.

The rabbit must have been sitting there the entire time I pondered my dilemma, yet I never saw him until he bolted out ahead of me. Without think-



ing, I dropped the squirrels, flung the little rifle to my shoulder and pressed the trigger just as the brown blur filled the sights. He went end over end and I let out a shriek that must have stirred the dead. My whole day had changed.

I'll never forget the exhilaration that swept through me as I picked up the rabbit. A few short knife strokes had him dressed. It was more than I could have hoped for, better than two squirrels, and I had just enough time to make the delivery.

The abandoned chicken coop was a good mile away. I hid my squirrels under a low thornapple and headed south across the fields with a new spring in my step and the feeling of hunger replaced by satisfaction and excitement.

What a day that was. And what I wouldn't give right now to go back and relive those next few hours as I worked my way through barbed wire fences, over stone walls and through thornapple thickets until I finally came to the lane that followed a hedgerow toward the old chicken coop. It was while going along this lane, my head in the clouds, hunting forgotten, that I spotted a patch of white in the hedge where no patch of white ought to be.

Instantly, I was back in business. I automatically dropped the rabbit and readied the rifle. The spot was tiny—hardly as big as the nail of your little finger—and it was partly hidden by a few wisps of brown wire grass against a rotted wild cherry stump. I crouched down a bit and squinted, trying to identify it for certain.

Finally I could see it, the outline of a bird with the telltale white on its neck and, just ahead of that, the patch of red around his eye. I don't remember raising the rifle. It was just there. When I pressed the trigger, the ringneck



**ANYONE, it was felt, could get squirrels with a shotgun. "But I don't use a shotgun. I use a rifle—a 32 rimfire!"**

erupted into a frenzy of wingbeating, then grew still. Ma would be tickled pink.

But at the chicken coop, *she* came to the door. I forgot all about Ma. "Here's a rabbit I shot for you," I blurted. "An' here's a ringneck, too!"

I thrust them out at her. When her big brown eyes looked me straight in the face, I felt the tips of my ears get hot. I wheeled from the door and swaggered across the yard, shoulders square and rifle held smartly in my right hand. It was probably the biggest day of my young life.

Within a few months, the new girl and her family moved away, the Depression driving them and their hopes to distant places. Maybe they found their dreams, maybe not. But when lunchtime came that following Monday, with the daintiness of a royal princess, but with a deliberateness that nobody missed, she lifted a pheasant leg from her lunch pail and took her place at the top of the class. For me, squirrel never tasted so good—before or since.

## Thoughts While Walking

*Against stupidity the very gods themselves contend in vain.*

— Schiller

# Facts About Our Breeding Birds

By Bob Mitchell

Assistant Editor  
GAME NEWS

**H**OW MANY KINDS of birds nest in Pennsylvania? Which species is the most widely distributed? Where and in what habitats do our rare birds live? Despite the fact that birds, as a group, are understood better and by more individuals than any other class of animals, including mammals, the answers to these and other seemingly elementary questions have been only speculative: until now.

In 1984 a systematic survey known as the Breeding Bird Atlas Project (BBAP) was begun to find the answers to these and other fundamental questions about Pennsylvania's bird life. Although the initial information gathering phase of this project is only half complete, a great deal has already been learned about the birds that nest here.

The BBAP is particularly significant for several reasons. It's safe to say that

never before has such an ambitious wildlife management project been undertaken in this state. The project is based on the efforts and expertise of over a thousand dedicated volunteers. It is the most extensive and costly project undertaken by the Wild Resource Conservation Board—the state's income tax checkoff program. The BBAP is also significant because the results from this study will influence wildlife management decisions for many years to come, and also represent the standard upon which these decisions will be evaluated.

The data-collecting phase of this project will not be completed until 1988, and the compilation of the data and the preparation of final reports will not be completed for another year or so after that. However, interesting and important information already has been gathered, and exemplifies the kinds of discoveries that will be gained.

According to these preliminary results, 178 species of birds positively nest in the state, and another 20 species apparently do. Based on the 1984 and 1985 data, our most widely distributed breeding bird is the American robin. In fact, censusers have yet to find a study area where this species doesn't nest. It is followed in nest distribution by the song sparrow, American crow, chipping sparrow, red-winged blackbird, bluejay, northern cardinal, barn swallow and indigo bunting.

Pennsylvania's atlas project is de-

**AMERICAN robins appear to be Pennsylvania's most widely distributed breeding bird. Through 1985, observers had not found any study site in which this species was not nesting.**

Leonard Lee Rue III





signed to determine not only which species nest in the state and where, but also in what habitat types. This project has been modeled after similar surveys done in other states. For census purposes, the state has been divided into grids, each grid corresponding to the area covered by a 7½-minute U.S. Geological Survey topographical map, a quadrangle.

Each of the 800 quadrangles in Pennsylvania has been further divided into sixths. Each sixth is referred to as a block, and these are the basic units in which birds are censused. The censusing is being conducted by, at last count, 1200 volunteers. Each has assumed the responsibility of censusing a block or several blocks. In 1984 and 1985, this contingent invested 23,000 hours (nearly 20 hours per observer).

### 43 Regions

For administration purposes, all of the quads in the state are organized into 43 regions. A coordinator directs the activities of all observers in a region.

Censusing is almost a year-round activity, as one species or another can be nesting in nearly every month of the year. Great-horned owls, for example, begin nesting in January; goldfinches, on the other hand, are most likely to nest in August. The vast majority of birds, however, nest in late spring and early summer. Censusing efforts, therefore, are most intense during June, July and August.

For censusing a block, the observer — possibly with help from his regional coordinator — makes a list of the bird species that can be expected to nest in the block, based on the habitat types found in it. He then lays out a census route in the block, making sure all habitat types are adequately covered.

Some blocks, those containing the widest variety of habitats, may have over 100 potential nesting species;

others, such as urban blocks, may have only a dozen or so. An average of 45 species per block has been found so far.

Each observer regularly travels his route and records all birds seen and heard. His primary goal is to find 75 percent of the species listed. When this level of coverage is attained, it's assumed the block has been covered adequately.

The presence of a bird is not in itself proof that it nests in a block. Its breeding status must be more fully ascertained. Observers must categorize each species' nesting status, based on the circumstances surrounding the sighting. Classification categories are "possible," "probable," and "confirmed."

Possibles include birds found in the block, but for which no corroborating nesting evidence is found. This category is for birds seen flying over the block, or those seen in habitats where they don't nest. The probable category is for birds seen behaving as if a nest was nearby. Those courting or apparently defending a territory — seen or heard at the same location on at least two occasions seven or more days apart — are included here. The confirmed category is for birds for which nesting within the block is almost certain. The discovery of a nest of young is absolute proof, of course. Birds are also classified as confirmed nesters if seen carrying nesting material or food, or behaving as if



**RED-EYED** vireos are among the state's most abundant breeding bird but, because these inconspicuous birds nest near the tops of trees, they are only rarely observed. Their presence is most often indicated by their singing.

young are nearby. To further help observers distinguish between migrating and nesting birds, a table of "safe dates" has been developed. These are dates when each species is most likely to be nesting.

In 1984 and 1985, 42 percent of the 4950 blocks in the state were censused, yielding 91,400 nesting records. Of these, 39 percent are possibles. 30 percent are probables, and 29 percent are confirmed. Efforts are now being directed toward verifying the nesting status of more birds in hopes of reducing the percentage of possibles and increasing that of probables. The primary goal is to make final results as accurate as possible.

Lists of Pennsylvania's imperiled plants and animals were developed several years ago. Those considered rare were classified as endangered, threatened, vulnerable, and status undetermined according to how threatened they were thought to be. Two other categories, extirpated and extinct, were used for plants and animals that are no longer found in the state.

Thirty-nine species of birds—including the extinct passenger pigeon—were listed. The bald eagle, osprey, short-

eared owl and king rail are considered endangered; the American bittern, least bittern, upland sandpiper, black tern, sedge wren, Bewick's wren and Henslow's sparrow, threatened; the great blue heron, Cooper's hawk, red-shouldered hawk, northern harrier, bobwhite, barn owl, red-headed woodpecker, purple martin, marsh wren, eastern bluebird, grasshopper sparrow, and vesper sparrow, vulnerable; and the northern goshawk, sharp-shinned hawk, long-eared owl, whip-poor-will, yellow-bellied sapsucker, least flycatcher, and bobolink, status undetermined. Eight species, the peregrine falcon, greater prairie chicken, piping plover, common tern, loggerhead shrike, dickcissel, Bachman's sparrow, and lark sparrow were considered extirpated—birds that used to nest in the state, but apparently no longer do so.

It became glaringly apparent during the preparation of these lists that in most cases little factual information exists on our state's flora and fauna. Another major objective of BBAP observers, therefore, is to find where and in what habitat types the listed birds are living. Atlasers refer to these as asterisked species, and among many observers there's a challenge to see who can find the most. When one is discovered, additional habitat information is recorded.

Among the endangered birds, nesting information has been obtained on all but the osprey and Bewick's wren. The bald eagles nesting in the Pymatuning area were recorded, of course, and censusers also discovered non-nesting bald eagles spending the breeding season in 32 other blocks. This information could indicate where our national emblem is most likely to nest in the future, and where management efforts might be applied. A king rail nest has been confirmed as well.

**THE UPLAND plover is among the 38 species of birds considered imperiled in Pennsylvania. As such, they are receiving special attention in the Breeding Bird Atlas Project.**

Karl Maslowski





New information on threatened birds includes the discovery of nesting locations for least and American bitterns, sedge wrens and Henslow's sparrows. Habitat data collected with the findings of Henslow's sparrows exemplify the value of this added effort. Because of this, we've learned that Henslow's sparrows are attracted to abandoned strip-mine sites—areas where people don't normally look for birds. If it weren't for the systematic design of this study, this facet, and others like it, would very well continue unnoticed.

### Flexible

A wealth of new information has been gathered on birds in "vulnerable" and "status undetermined" categories, and serves to demonstrate another important point: this list is flexible. As more discoveries are made, the list will be modified. For instance, according to preliminary survey results it appears that eastern bluebirds, grasshopper sparrows, least flycatchers, and bobolinks are more abundant than previously thought. Therefore, it's possible they should be removed from these lists. Long-eared owls, however, seem more rare than previously thought, and perhaps should be elevated into a more protective category.

New information on the ranges of some common birds also has been discovered. Red-breasted nuthatches, golden-crowned kinglets and yellow-rumped warblers were discovered breeding farther south in the state than previously known; and yellow-throated warblers, blue grosbeaks, summer tanagers and black vultures were found farther north.

Even some birds thought to be extirpated were found here. These include dickcissels and one loggerhead shrike.

Several other findings, though not particularly important from a management standpoint, are interesting. The first documented sightings of European

jackdaws, Chuck's-Wills-Widows, black rails and clay-colored sparrows came about through this extensive effort.

When the censusing phase of this project is concluded, state distribution maps will be prepared for every species found nesting here. These will, in some instances, enable resource managers to initiate or refine habitat management techniques to help the species most in need. It's impossible, for example, to adequately protect and manage endangered species until it's known where they live and what they need to thrive.

Possibly even more important, this information will represent a benchmark against which future trends in bird populations will be measured. It's impossible to say with certainty how Pennsylvania's bird life has changed in the past. Such changes can be only hypothesized, based on documented habitat changes that have occurred during our state's history. Early accounts are of minimal value because they are more a reflection of where early naturalists studied birds, rather than where birds actually existed. With this new, scientifically based information will come the ability to accurately assess future changes.

Answers to many questions about the species and distributions of breeding birds in Pennsylvania will soon be known. They are sorely needed. As a science, wildlife management is becoming increasingly sophisticated. To fully realize the benefits modern technology offers wildlife conservation efforts, it's imperative that resource managers have reliable data upon which new procedures and strategies can be employed.

Thanks to the many volunteers dedicated to gathering the breeding bird data, and the thousands of individuals and organizations supporting this project, natural resource managers will soon have the high quality information needed to carry wildlife management in Pennsylvania into the computer age.





# THE WANDERING WOODCOCK

By Leland R. Moran

I CHAMBERED a load of 7½s and put two 6s in the magazine as Dad and I approached “the hill.” It had seemed an eternity before 9 o’clock arrived, but now rabbit season had begun. We decided to hunt the hill first because we had jumped three rabbits there on the previous Saturday. And then we were concentrating on the white birch and tag alders where we knew woodcock would most likely be found, and stayed away from the brushpiles and briar tangles.

I was chomping at the bit. Just the thought of a pot of stew simmering on the stove made my mouth water. I was hoping we’d get at least three rabbits—two would do in a pinch—because I like a lot of meat in my stew.

Today we were hunting the hard way—without dogs. Dad loves to reminisce and still gets dreamy-eyed when he tells me how Ol’ Tip used to hammer the rabbits for him, my grandfather, and Howard when he was a boy.

“No sweeter sound on earth than the barking of a good hound on a hot track, and no finer beagle ever hunted than Ol’ Tip,” he would say.

I didn’t doubt any of that, but his stories were only pleasant hunting tales to me. In today’s reality, I was the dog. I loved the strenuous exercise of kicking through the thick cover on the hill, jumping on brushpiles, and wading through briar thickets. The pure excitement and sheer surprise when a bunny suddenly bolts from cover, or a grouse or woodcock unexpectedly thunders skyward, make it all worthwhile. The thoughts of using dogs intrigued me, but I couldn’t imagine knowing when a shot was coming. That element of surprise, to me, is the essence of small game hunting.

After two uneventful hours my mind was beginning to wander, but the whistling wings of a woodcock jarred me to attention. The bird flushed 15 feet ahead, in thick white birch, and headed straight away toward a patch of raspberry briars. The Remington pump came up instinctively. I fired, missed, pumped, and fired again. The bird crumpled and dropped well ahead, in the thickest part of the raspberries. No problem. I saw about where it had dropped and I was going to hunt my way there. Last week I had put a big rabbit out at the edge of the patch, and I wasn’t about to be surprised this time while I looked for my woodcock. Big mistake. The bunny wasn’t there and I soon got disoriented and wasn’t sure where the timberdoodle had fallen. It was a jungle in there. We combed the underbrush for a full hour and were ready to give up when my father finally happened on the downed bird. The experience taught me a lesson, and I vowed to always make a beeline toward fallen game from then on.

## Eight Shots

As we ate lunch, we wondered whether my bird was the same lone woodcock we had raised three times and fired eight shells at on the previous two Saturdays. We had scoured the best looking cover long and hard both days, but one each day was all we managed to flush. This spotty action bore out the reports we’d heard about the scarcity of woodcock.

After lunch we headed back up the hill. Just above where I had dropped the woodcock, we started a slow zigzag. I still had bunnies on the brain, as walking was too noisy to let us get anywhere near the few grouse that lived there, and I was semiconvinced I had already



**I PAUSED to catch a breather, glanced to my right and, just a few steps from my boots, noticed a white splotch on the brown leaves. Woodcock sign.**

killed the hill's only woodcock.

Dad got to where he had bounced out a rabbit the previous week and soon discovered a form. It was still warm. This reinforced his thinking that many more rabbits sneak out ahead of hunters than sit tight and let us kick them out. I knew it happened on occasion, but I wasn't convinced it was as frequent as he claimed.

A few more steps and the bunny streaked to my right a good 25 yards ahead. I threw the gun up just as he disappeared in thick cover. My snapshot missed cleanly. The rabbit apparently had sneaked out before Dad got near, and angled across in front of me. When he heard me approaching he turned on the afterburners.

We kept working slowly, about 50 yards apart, stopping frequently. We knew this tactic often causes tight-sitting game to panic and flush. After about a hundred yards, I turned right and headed downhill. I got behind some saplings and peered around them to where a huge white birch had fallen.

I thought the dense branches along it made a perfect place for that rabbit to hide. Zoooooooooom! He looked like a streak of gray lightning shooting out from under there. I must have looked like a klutz as I tried to unsnarl myself from the saplings and take a pop at him. Not even close. This bunny was destined to see another day.

After that fiasco, Dad and I headed for a big open field on top of the hill. As was our custom, the guy who was having the least action got to pick which side of the cover he wanted to hunt. Dad's 20-gauge double had been silent all day, so he elected to go through the dense white birch along a stonewall at the upper edge of the field—a wise choice, I thought. I had worked the lower edge of the field on a previous swing, so I decided to cover the middle now. One fairly large clump of white birch grew in the center of the field and a few smaller ones were scattered around, but most of the field where I was going held only goldenrod and ferns. As experienced hunters know, small game prefers thick cover and edges, so I wasn't optimistic about this swing and was already pondering the next one.

### White Splotch

I moved through some of the small clumps and was emerging from the large one in the center when I stopped at its outer edge 20 feet shy of the stonewall that would end the swing. I glanced to my left to see how Dad was progressing. He still had some ground to cover, so I paused to catch a breather. I glanced to my right and, just a few steps from my boots, noticed a white splotch on the brown leaves. Woodcock sign. The thought had barely registered when the bird hurtled from the goldenrod and whipped across the open field. I was so thunderstruck I jerked the gun up quickly, fired too soon, and missed. He was still within range, though, as I regained composure and swung. At the second boom he folded up neatly and dropped.

As I walked directly toward him, I



scolded myself for missing the first shot. I had gotten into the bad habit of shooting the first shot too quickly. I realized I had been taking more game lately with my second and third shots than with my first. It was a rough habit to break. Dad said I was like his old hunting buddy Howard, and that guys like us kept Remington, Winchester and Federal in business.

"Did ya get him?"

"Sure did!"

"Rabbit?"

"Nope. Woodcock."

### Surprised

I think he was as surprised as I. I returned to where I had fired, picked up my fired cases, and prepared to finish the swing. Five steps later, I heard a slight scuffling in the leaves to my right. Rabbit, I thought, as the muzzle came up searching for the bunny.

I thought my eyes were playing tricks on me. Walking through the leaves, as if trying to sneak away, was a huge woodcock. I had, on rare occasions, seen woodcock sitting, but I had never seen one walking before. It was as if he was not in the mood for flying and was just out for a midafternoon stroll. His head and long beak bobbed up and down and his tail pointed up in the air as his short spindly legs tried to silently take him away. His head was cocked over his shoulder and he was peering up at me, beady-eyed, as if to say, "You don't see me; just pretend I'm not here." It was one of the strangest things I ever saw.

He slipped into some goldenrod and, knowing he might disappear at any moment, I decided to flush him. A few quick steps put him in the air. I shot nonchalantly, thinking I couldn't miss. Wrong. My shot only inspired him into some patented aerial woodcock tricks as he darted along the edge of the field ahead. Bang. Bang. I gaped in utter amazement as he wove through the thick birches after the third shot. How could I have missed?

Dad came down to see what was going on. I was standing near the wall



**OUR DAY** had started as a rabbit hunt—just the thought of a pot of stew simmering on the stove made my mouth water—but somehow woodcock dominated our efforts.

and he was just to my left as I proceeded to tell him about the strange walking woodcock. I was halfway through the story when a rustling noise interrupted me. Up ahead, on the other side of the stone wall, was my friend, wandering merrily along. It seemed he was determined to finish his walk. I held up a hand to silence my father, and watched the bird stroll about fifteen feet through the birches before disappearing behind a large clump of trees. He didn't come out the other side.

### Your Turn

"Come here, Dad. It's your turn for a shot. That woodcock just walked behind that clump of birch trees. He's just the other side of them. Circle down below, cross the stonewall, and come toward him from the lower side. You'll get a better shot that way."

Dad looked at me quizzically, as if I were kidding, but he wasn't about to pass up a potential shot after going dry all day. He started to circle while I slowly and quietly backed up. I wanted to make certain I'd be out of the line of



fire and I also didn't want to risk accidentally raising the bird myself. I'd moved three steps back when a rabbit blasted out of the goldenrod, over the wall, and past my father. All I saw was the grass moving. I had almost stepped on the tight-sitting little critter. He apparently had been caught off guard, with little protective cover in the grassy field, and was forced to sit there nervously watching our woodcock drama unfold.

I yelled as the bunny cleared the wall and blazed through the thickest section of birch and goldenrod. Dad took a crack at him and then watched with dismay as he kept motoring. This was not our day for rabbits.

I was surprised our woodcock hadn't flushed from all the commotion. I watched with anticipation as Dad approached the birches where I had last seen him walking. We were both ready, expecting the flush at any moment. Dad stopped just to the right of the clump. Nothing.

"Are you sure this is where you saw him? You weren't seeing things? How far could a woodcock walk on those little legs?"

"I'm positive. Maybe he walked out in the field a little way. Hit that corner of the field. He's got to be somewhere," I replied.

Dad proceeded to slowly and carefully cover the lower corner of the field. Still nothing. "Show me exactly where you last saw him."

I walked over behind the clump of trees and glanced down. The bird was lying dead. I apparently had knocked him down with my third shot, and he had just enough stamina to walk behind the trees before keeling over. My intention of giving Dad the shot was good, but I couldn't expect him to flush a dead bird. It just goes to show you should always expect the unexpected when hunting the wily timberdoodle.

The rabbit stew would have to wait for at least another week. That was okay with me, though, as it had been a perfectly enjoyable day afield. We'd had plenty of shooting at rabbits, even though we'd come up empty. And, as I finished the day sitting in hopes of bagging a squirrel or turkey, I saw a nice buck not far from one of my favorite deer stands. That got the old blood pumping in anticipation of the upcoming deer season. Best of all, for the first time ever, I'd taken my limit on woodcock. I'd killed three birds once or twice before, but that was in prior years when the daily limit was five. Now it was three. And the third one had walked right into my game vest.

## Note Regarding Waterfowl Seasons

We normally publish in the October issue the seasons and bag limits for waterfowl. That information does not appear in this issue because the printing date for GAME NEWS has been moved ahead and we have not yet received the necessary federal approval for our recommended dates. Before hunting, check your newspaper for our news releases giving seasons and bag limits.



# Deer Hunting: The Human Factor

By Don Feigert

**I**T WAS eight o'clock in the morning on the first day of antlerless deer season. I was hunting alone at our Pleasantville camp in Venango County near the border of Forest County. I had been standing since dawn on a bench overlooking a bottleneck of well-traveled deer trails, a proven spot from which I had taken three deer in previous seasons. Shooting had been spotty that morning and had occurred mostly just after daybreak. But it was a beautiful day for hunting, and action promised to improve. It was about 25 degrees, with no wind, and light snow flurries settled on a slightly crusty six-inch base. I decided it would be difficult to move quietly that day, and easy to stay put and wait for the deer to come to me. For those exact reasons, and without hesitation, I moved.

The best bedding area I knew of was several hundred yards down from the ridge I was hunting, in a valley full of alternating cover. Dense patches of pines bordering a creekbed in the valley opened from time to time into stands of taller trees, sections of cut forest, and old logging roads. I headed straight down to the valley, intending to push deer out into the open where I hoped to get a shot. Along the way I passed several hunters, all of whom were snugly settled in, watching and waiting. This was exactly what I had figured.

I moved carefully through the creekbed cover for about an hour and a half. I saw many fresh beds and tracks, so I knew I had some deer moving. When I came to a section of mid-size pines planted in regular rows. I tried a maneuver. I knew from previous hunts that deer often moved diagonally through that section and came out into



**ONE OF THE** most important factors is understanding other deer hunters' numbers and movements and using their tactics to your advantage.

an open woods above the far corner. So I moved fast in a lateral direction, skirted the corner of the section of pines, and started slowly up the other side, looking ahead for movement.

Suddenly, only 50 yards in front of me, three deer crept out of the pines and slipped into the open woods. The last one was a fat, medium-size doe that lagged a few steps behind. Quickly the Remington 30-06 rose to my shoulder, and the crosshairs settled on the target. The shot sent all three deer running. But while the first two bounded swiftly away, the third ran awkwardly, head lowered, neck stretched forward over the front legs. A heart shot, I knew from experience. After a 30-yard sprint, the deer crashed to the ground and lay still. A quick field-dress and drag back to camp brought the year's hunting season to a close for me. Sure, I knew I had been lucky. But I also was convinced that the decision to move my own deer

that morning while other hunters stood still had directly led to my success.

In Pennsylvania and other states with high numbers of hunters, one of the most important factors in a deer hunter's success is his understanding of *other* hunters' numbers and movements and his ability to use *their* tactics to *his* advantage. The human factor in deer hunting.

### Habitat/Behavior

An understanding of the relationship between habitat and deer behavior is unquestionably important. And certainly every good hunter will scout his deer hunting grounds beforehand to determine exactly where the deer are working in that particular year. So go ahead and look for buck rubs and scrapings, and locate the most heavily used deer trails, convergings, and crossings. Do your level best to find where most of the deer are bedding and their nighttime feeding areas. Determine two or three stands between those feeding and bedding areas and finally select one as your choice starting point for the *first hour* of the season. After that time, though, the number of deer you see and your chances of success may depend more upon what *other hunters* are doing.

During all of those preseason preparations, do *not* anticipate a wilderness hunting situation on opening day. If you arrive at your chosen spot at 6 o'clock wait silently for about 45 minutes, and then watch as a half-dozen or more other hunters crash noisily into your area in the next 15 minutes. Don't be surprised. Expect that to happen. Instead of longing for the old days when deer hunters were a few hardy stalkers of game, you should recognize the fact that the chances of seeing deer in Penn's Woods are better now than ever before. And the two main reasons for this are the Game Commission's sound deer management program and the very fact that there is increased hunting pressure. If you learn to take advantage of the human factor, you'll consistently be more successful. There are only a few

guidelines that have to be considered in such situations.

In Pennsylvania, most of the deer taken are shot on the opening day of buck season and the first day of the antlerless season. Understandably, these two days are also the days with the highest numbers of hunters afield. There are two ways hunters can effectively handle this high hunting pressure: if alone, by making adjustments according to what other hunters in the area are doing; and if in a group, by cooperating with other members of the party.

I have one cardinal rule in reacting to the general hunting population. I try to do the *opposite* of what most others are doing. When I think most other hunters are moving, I'll stand and hope they drive deer to me. When I figure they're standing, I'll stalk the bedding areas. I've found this practice to be particularly effective during antlerless season. Sometimes determining the behavior of others in the woods is difficult, but usually there are clear indicators. Actual sightings of other hunters are obvious tipoffs, along with information given by hunters passing by. But experienced hunters can make reliable educated guesses concerning human activity by considering weather conditions, the frequency and location of shooting, knowledge of the territory, and local hunting pressure in previous years.

### Human Factor

Many hunters fail to include the human factor in their preseason preparations. They don't pay enough attention to levels of camp activity and numbers of target shooters during the weekend before opening day. They also don't bother to stop and visit with hunters in other camps. Communicating with local hunters and neighboring camp residents promotes friendships over the years and also greatly increases a hunter's ability to develop methods that can be employed in and around his own hunting grounds. This human input should be combined with careful searches for deer sign to round out a hunter's preseason planning.



# The Great Pocono Mountain Turkey Shoot

By Calvin J. Klein

*"Thursday, November 9, 1983, 8:30 a.m. —late for entering the woods to hunt for a wild turkey; beautiful sunlit morning with virtually no breeze; about 45 degrees Fahrenheit — warm for a November morning in the Pocono Mountains."*

**T**HUS READS the introductory passage in the outdoor journal I keep to record my adventures afield. While it was certainly a prescription for a beautiful walk along a wooded Pennsylvania ridge, it gives no hint at all of the fantastic turkey hunting experience I would enjoy in short order.

I was no more than twenty minutes from the highway where I'd parked my auto when I thought I heard a hen turkey yelping above me on the ridge. Two years before, while bear hunting along the same ridge, I had seen numerous turkey scratching areas and then, one dawn, flushed a large flock from their roosting trees. But I never imagined I'd hear a bird so quickly this time—before I was even prepared to stop, put on my camouflage headnet and employ my call. My first thought was that I was listening to another hunter. Nevertheless, I began to prepare myself for a real live turkey.

I quickly moved behind a large tree, took out my box caller and rechalked all points of contact, then donned my headnet. As I did so, I again heard the yelping of a turkey some distance ahead. In return, I gave two long yelps, followed by a half-dozen shorter ones. The bird, or hunter, answered me, but after some give and take, the response grew weaker and more distant. Fearing that if it was a turkey it had detected some false notes on my part and was leaving, I stopped calling

and waited. The yelps grew more distant, then ceased. I felt I had lost my chance to take that particular bird.

After waiting thirty minutes or so to be sure no turkey was silently moving toward my position, I decided to continue up the ridge. I planned to gain a high knoll and then sit with my back against a tree and continue calling. I figured I had a better chance up high as turkeys often hesitate to come downhill to a caller. I moved out slowly to prevent undue noise in the dry leaves, watching mostly in the direction I'd last heard the turkey calling. I wanted to spot any birds before they saw me. To help avoid detection, I moved from behind one tree to the next.

It took me fifteen minutes to get to a high knoll, but I was pleased because, to my knowledge, I had flushed no birds. I seated myself against a large tree, and not a moment too soon for I



heard something moving toward me through the fallen leaves. My heart started to pound. Was it a turkey, a hunter, or what?

Within moments I saw what was moving through the dry oak leaves—a spike whitetail buck. He was about 50 yards ahead of me, passing at an angle. Certainly an interesting sight, but not nearly so much as a turkey would have been. I decided to test the deer's reaction to my turkey caller. No sooner did I make some music on my caller and note that it affected the whitetail not at all then a strong series of yelps came from out in front of me, apparently less than 100 yards away. What a sound—provided it was a turkey and not another hunter. I was encouraged,

though, because the buck had just come from that direction and he hadn't been the least bit alarmed.

Each time I called I received a strong response. Yelps also drifted in even when I did not use my box. If it was another hunter, he was a real pro. After some fifteen minutes of give and take, however, I knew it was not a hunter—for now I was receiving numerous replies from all across my front. They included a full volume and range of notes. It sounded like a large flock of wild turkeys out there. The leaves began to rustle ever more loudly—and then it was clear than an entire flock was headed my way!

### Ready

I quickly placed my caller beside me on the ground and brought my 20-gauge to port arms. The modified barrel contained a 3-inch magnum number 6 shell for a potential head shot, and the full choke barrel had a magnum load of 2s for a body hit. I was as ready as I ever would be.

As minutes ticked by, my pressure level grew in unison with the scratching sounds in the leaves. There were many beeches in the area, and I was sure the birds were searching for this nutritious foodstuff as they worked my way. I expected to see a bird at any second, and hoped the first one would come up over the edge of the knoll I was seated on, directly out in front of me. But that was not to be the case. The right flank of the flock was strung out ahead of the main line of advance, so the first birds I saw were off to my far left. That was still fine with me because, as a right-handed shooter, I have no difficulty in firing to my left.

Suddenly the head of the lead bird—a gobbler—popped up above a log some 20 yards away. I knew he saw



**FATE WAS ON my side. Another fine gobbler took off just to my left and flew right over me. A moment later he thudded down and lay motionless some 15 paces away.**



me, so I had to fire before the alarm was spread and I got no shot at all. But an instant before I squeezed off my first barrel, the head disappeared and I knew I had missed.

At the sound of the shot turkeys were everywhere, running, gliding and flying. But fate was still on my side, for another fine gobbler took off just to my left and flew right over me.

A moment later he thudded down some 15 paces away and lay motionless. I slowly lowered my gun and just sat there, recreating in my mind what had happened and simply savoring the experience. I've thought about it many times since, and still find it hard to believe that I once succeeded in calling in an entire flock of turkeys and from it took a Pocono Mountain prize.

## 25-Year Club

*Pennsylvania Game Commission personnel have compiled an enviable record among public and conservation agencies for longevity of service. Few organizations in any area of endeavor can boast so many dedicated employees. The most recent PGC employees to complete 25 years of service are shown here.*



**John Greis**  
Labor Foreman 1  
Kutztown, Pa.



**Arnold Hayden**  
Game Biologist 2  
Wellsboro, Pa.



**Manuel Ennis**  
Labor Foreman 1  
Adamsville, Pa.

## Bucks County Wildlife Art Exhibition

The fifth annual wildlife art exhibition and sale will be held on December 6 and 7 at the New Hope-Solebury High School, West Bridge St., in New Hope, Pa. Sponsored by the Bucks County Audubon Society and the Honey Hollow Watershed Association, the show will feature the work of forty award winning artists. All artwork will be offered for sale to the public. In addition, many artists have donated their works to a silent art auction. Proceeds from donations, the silent auction and poster sales will benefit the Honey Hollow Environmental Education Center in Solebury. The center provides numerous environmental, archeological, science and nature programs for the public, teachers and students.



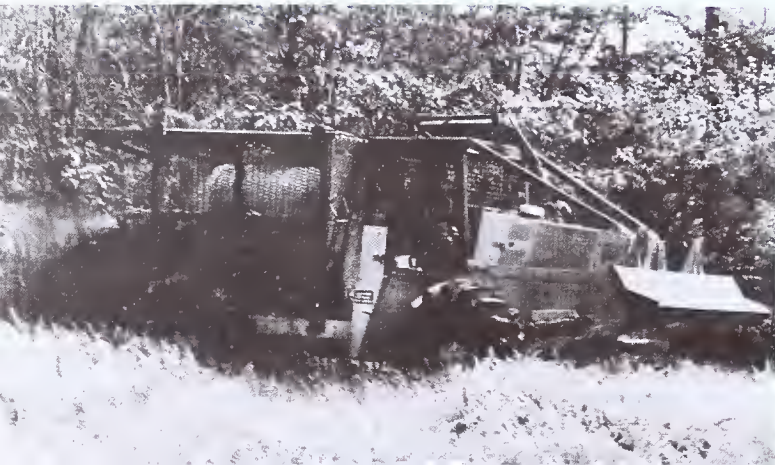
**THIS SITE** just cut by the Royer Woodsman will be used heavily by wildlife. Some birds prefer clearcuts for nesting, and many animals take advantage of the food and cover resulting from such treatment.

**M**ODERN machinery is playing an increasingly bigger role in wildlife management. The Pennsylvania Game Commission has recently begun using three new specialized types of equipment to more efficiently develop and maintain wildlife habitat in the state.

An aquatic vegetation cutter—purchased, in part, with a grant from Ducks Unlimited's Marsh Program—is being used in the Pymatuning-Conneaut Marsh area to clear weed-choked marshes so they will be more useful for nesting waterfowl.

A Royer Woodsman and a Franklin Fernsprayer are being used in selected areas across the state to develop brushy and herbaceous openings for grouse,

**A LUSH** carpet of ferns is pleasing to the eye but of essentially no value to wildlife. Large fernsprayers are the best tools for controlling ferns and opening up significant areas for more beneficial plants.

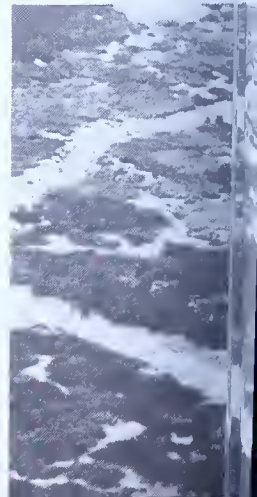


# Mecha Wild Manag

**THE ROYER WOODSMAN** making undesirable trees and debris be cleared in only a week. New provides food and cover for woodland wildlife, most notably deer.



**WITH** the vegetation creating a 50-200 ft. wide opening. Such a blend, the number of waterfowl



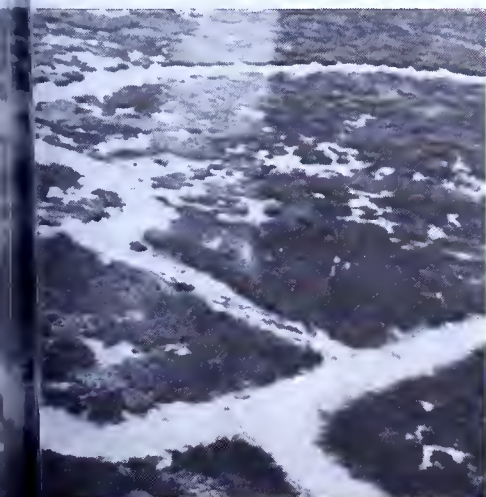


# nizing life ement

quick work of clear-  
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roth on cut areas pro-  
a every species of  
y, rouse, rabbits and



cutter, land managers plan on  
mix of open water and vegetative cover.  
to feel, will accommodate the maximum  
artov the area can sustain.



**THE AQUATIC VEGETATION CUTTER** clears marshes clogged by nearly impenetrable vegetation. This specially equipped boat is able to operate in as little as 18 inches of water.



rabbits, deer and all the other species of wildlife that use these habitat types.

The Royer Woodsman mows down and grinds up small trees and shrubs to stimulate the growth of more desirable food and cover plants for forest wildlife. The Franklin is used in those areas where carpets of ferns interfere with natural forest regeneration.

These modern devices enable Game Commission personnel to accomplish in days what used to take weeks or even months, and at equally significant financial savings. The use of these and other machines will undoubtedly escalate in future years, signifying the agency's commitment to most efficiently and effectively provide the food and cover needs of all wildlife in Pennsylvania.

## Not Entirely to Blame

**VENANGO COUNTY**—I recently was called to testify at a civil trial concerning a hunting accident in last fall's turkey season. The jury found the shooter negligent and liable. However, they found the victim to be 50 percent contributorily negligent because he was wearing camouflage clothing. This means he had to be responsible for half the damage. That the jury felt a person's clothing was as big a factor as someone not checking his target to see what was in front of and beyond it should give all of us something to think about. —DGP Len Hribar, Oil City.

## Distant Calls

**MONTGOMERY COUNTY**—Being the district game protector here for the last ten years, I have received thousands of complaints about nuisance wildlife. Many of these even come from neighboring counties. But when Diane Mertens telephoned from Birmingham, Alabama, with a complaint about squirrels in her attic, I was really surprised. Although the Game Commission is nationally renowned as a conservation agency, we don't normally get animal complaints from out of state. In truth, the call was not so unusual because Diane and her husband Randy had been my neighbors until their recent move south. —DGP William Wasserman, Montgomeryville.



Nick Rosato

## Good Team

**MIFFLIN COUNTY**—Despite his 56 years of hunting experience, my 72-year-old dad never got a turkey until last spring. I had the opportunity to share the excitement of the hunt, and now I know how a father must feel when his young son takes his first deer or turkey. My emotions when I shook my dad's hand as we stood over the gobbler could only be understood by another hunter. Congratulations, "Bucklore." —DGP Timothy Marks, Milroy.

## Unsung Heroes

The following demonstrates the kinds of accomplishments made by our Food and Cover Corps for wildlife and sportsmen: A hen turkey with 14 young on SGL 222; a hen mallard and 12 ducklings on a farm pond in Farm-Game Project 152; a hen wood duck with 13 young, and 2 juvenile beavers on a marsh in Area 402; and, finally, a fawn lying in the shade of a spruce plantation on SGL 227. Observations like these strengthen the efforts and commitment of these hard working crews. —LMO Stephen L. Opet, Tamaqua.

## Good Signs

**McKEAN COUNTY**—A dry spring plus an abundance of grasshoppers made this an excellent year for turkey and grouse production. I saw my first turkey brood on June 1 and it had over ten poults. —DGP John Dzemyan, Smethport.



## Mismatch

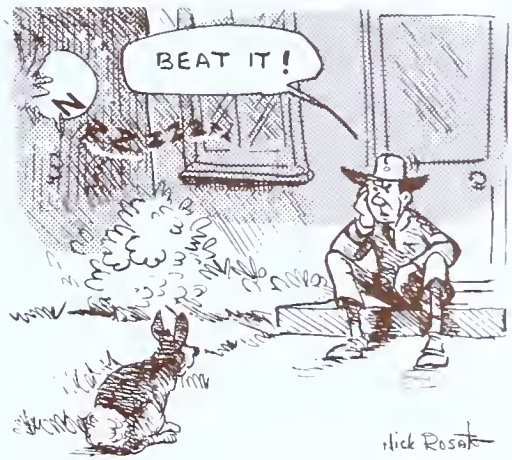
**BUCKS COUNTY**—I received a call in April from the owner of a local body shop. He had observed a male wood duck and a female mallard spending a lot of time together behind the shop the previous fall. His men even joked about how the woodie might convince the mallard to nest in a tree as wood ducks often do. Well, when spring came so did the two ducks, and they even made a nest up in a hollow willow tree. As the female mallard sat on the nest, the wood duck sat by her side. Although the eggs probably were not fertile, we will never know. The nest was eventually destroyed by a housecat. — DGP Cheryl A. Trewella, Trumbauersville.

## And Payin' Extra For It

**GREENE COUNTY**—As game protectors we hear many complaints—license fees are too high, there are too many deer, there are not enough deer, the laws aren't fair. The list goes on indefinitely. The other day, though, while settling a fine, I met a gentleman who didn't complain. As I was writing him up for a Game Law violation, he remarked, "Ain't no use gettin' mad. You're just doing what we pay you to do. And I'm sure gettin' my money's worth."—DGP R. S. Ansell, Rogersville.

## Learning Experiences

**LYCOMING COUNTY**—When I agreed to present a program to 150 sixth graders, I was told I could choose any outdoor subject I wanted. A day or so later, pondering just what kind of program to put on, I looked around at all the equipment inside my vehicle and decided to discuss some of the many things game protectors use. It wasn't until I actually started sorting through my equipment that I realized all of the things I had. As it turned out, the youngsters enjoyed my program and I found a few things I hadn't seen for awhile. —DGP Dan Marks, Proctor.



## Honeymoon's Over

**JEFFERSON COUNTY**—Starting out totally unfamiliar with the Game Commission, my new bride has been coping well. Cindy has learned to put up with deer jawbones and litter (needed as evidence) in the basement, packages containing everything from songbirds to bear bait in the freezer, and two fawns in the living room until they could be delivered to Penn State. She did draw the line, however, when I stopped our personal car to pick up a roadkilled coyote. She understood the need for study specimens and my willingness to help out, but she refused to travel over 80 miles with a smelly carcass in the trunk. I couldn't change her mind and ended up reporting it to a local deputy. We then drove home in silence. We were married less than a month at the time, and this was our first fight—one we will probably never forget. —DGP Don Chaybin, Brookville.

## For Wildlife

The Game Commission's 1986 seedling program in Somerset and Fayette counties was again successful; 155,190 trees and shrubs were delivered to sportsmen's clubs, schools, scouts, businesses, mining areas, Game Lands, and private lands open to public hunting and trapping. —LMO Barry K. Ray, Sr., Rockwood.



### All Three

**ADAMS COUNTY**—While stocking pheasants this spring, I spotted a strutting male. I stopped the truck and released ten hens. The cockbird ruffled his feathers and voiced a series of crows and cackles which could have meant one of three things: Thank you, Game Commission; Hi, there, ladies; or, It's gonna be a busy day!—DGP M. A. Dubaich, Aspers.

### At The Very Least

**CLINTON COUNTY**—I investigated a hunting accident in which the victim was dressed in full camouflage and mistaken for a turkey. The offender mistook the victim's red hunting license holder for the red head of a gobbler. I therefore strongly recommend fluorescent orange license holders for turkey hunters. —DGP John Wasserman, Renovo.

### Safety-Minded Senior

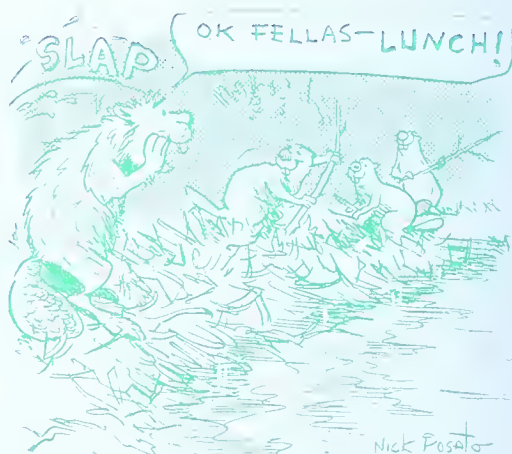
**INDIANA COUNTY**—Last spring, Alfred Mack of Vintondale, the 76-year-old father of Deputy Shorty Mack, bagged his first turkey, a 17-pounder. Most impressive is that Al refrained from wearing the customary camouflage clothing and, for an extra margin of safety, he even wore a fluorescent orange hat. —DGP Mel Schake, Indiana.

### Best Way to Stop It

**FOREST COUNTY**—Thanks to evidence provided by two sportsmen, I was able to successfully prosecute an individual for littering in the Kelly Pines area. These two men went out of their way to assist us and offered to testify at a hearing. That wasn't necessary because the defendant pleaded guilty and even cleaned up the litter afterwards. Well done, fellows. —DGP Al Pedder, Marienville.

### Pace Yourself

With another season of hunting upon us, it's important to remember to start slowly and work gradually into more vigorous activities. A little discretion now can make the entire season most enjoyable. —LMO Jerry Becker, DuBois.



### What About Two?

**SUSQUEHANNA COUNTY**—While presenting a program at the Camp Archibald Girl Scout Camp, I was explaining some popular misconceptions about beavers when one of the scouts told me how beavers send messages with their tails. One slap on the water means lunch is ready; three means here comes the trapper. It's an interesting theory that I will definitely include in my next program—DGP Charles J. Arcovitch, Kingsley.



## Room for Improvement

**CRAWFORD COUNTY**—This year has been an excellent one for waterfowl here. Canada geese are as abundant as always, and mallard and wood duck numbers are up. The increase in mallards could be due to a high number of muskrat huts which the birds use as nest sites, and also to our “cookie cutter” marsh clearing machine that has opened up new nesting, feeding and resting areas for waterfowl. Wood ducks are up at least partly because of the hundreds of nest boxes built and erected by the Game Commission and allied sportsmen’s groups. However, many beaver impoundments and farm ponds could still use some nesting boxes. If you and your group are looking for a great winter project, especially one that will appeal to landowners, write us for a copy of our nest box plans.—LMO Keith Harbaugh, Meadville.

## No Time To Waste

**PERRY COUNTY**—We played host to a busy little bird on our homestead this spring. In one month, a Carolina wren built a nest in our garage, another in a hanging flower pot, one in the bird feeder, and a fourth in a yew at the end of our driveway. We don’t know which one she used, but in the summer we saw her teaching her young how to fly and find bugs in the sawdust. What a schedule.—DGP Leroy L. Everett, Newport.

## Worth Doing

**WESTMORELAND COUNTY**—From the signs I see while patrolling, there is no reason any hunter should return home with an empty game bag, what with all the cans, bottles, and other debris littering the fields and forests. Each of us should pick up a little and properly dispose of it. Such cooperation would not only help beautify our landscape, but would also improve relations between sportsmen and landowners.—DGP Dennis L. Neideigh, Greensburg.

OCTOBER 1986

## Brain Wracking

**BUTLER COUNTY**—Possibly the most difficult aspect in completing monthly reports is coming up with a suitable Field Note. After searching the recesses of my mind for a considerable amount of time, all I can draw is a blank. So, in the interest of conservation and to assure sportsmen their dollars are being well spent, I will move on to other pursuits.—DGP Larry Heade, Butler.



## Animal Complaints

**VENANGO COUNTY**—In reading his job description, my newest deputy thought the reference to an element of danger referred to law enforcement. He now knows differently. In one week, he was stung by bees while investigating a bear damage complaint, bitten by a hummingbird when he blocked the feeder, bitten on the ear when he crawled inside a bear trap with a tranquilized bear, and, finally, clawed by a red-tailed hawk as he attempted to release it.—DGP Leo Yahner, Franklin.

## At Least Six Left

**TIOGA COUNTY**—We have a few turkeys remaining from this year’s spring season. My son called in a flock of seven toms on the second to the last day.—DGP Frank Bernstein, Middlebury Center.



### Collision Course

**BERKS COUNTY**—Being recently assigned to the southern district in this county, I figured handling bear complaints would not be among my duties. I was wrong. Last spring a young male bear came through here in search of a new home. Fortunately, he made it past this heavily populated area without any damage to either himself or the public. When he continued on into Chester County, however, DGP Lou Fortman and I captured him before any problems did arise. — DGP Robert L. Prall, Birdsboro.

### Look Twice

Members of the Pennsylvania Wild Turkey Federation met with us last winter to mount a campaign to prevent turkey hunting accidents. As a result, news releases encouraging hunters to “look twice” and positively identify their targets were distributed throughout the region. We have no positive way of measuring the impact of this cooperative effort, but are pleased to report there were no hunting accidents in this ten-county area during the spring turkey season. Thanks to Dan Roessner and the Allegheny Sultans Wild Turkey Chapter, we seem to be making more turkey hunters safety conscious here. — IES Robert G. MacWilliams, Sandy Lake.

### Best Medicine

**BLAIR COUNTY**—Like a lot of folks, I have a garden at home which we use for food and — despite what my kids think — recreation. And, also like a lot of folks, I have problems with rabbits, groundhogs and birds. Although I have ready access to traps, I don’t consider them the primary means to alleviate wildlife problems. Fencing undoubtedly is the best deterrent. Woven wire, chickenwire or electric fencing will do the job if properly installed. Birds can be kept from berry patches with netting available at farm and hardware stores. As they say, an ounce of prevention . . . — DGP Stephen A. Kleiner, Altoona.

### Economics

**MERCER COUNTY**—Many people still ask what happened to the ringnecks here. I explain that Game Commission studies have shown early hay mowing results in an extremely high mortality of nesting hens and young. I observed mowing in mid-May this year, for example. With farm economics as bad as they are, it’s not fair to blame farmers for trying to maintain their livelihoods. It’s equally unrealistic to think the Game Commission and sportsmen’s clubs can maintain good nesting habitat everywhere. The problem is obvious; it’s finding a solution that’s difficult. — DGP Jim Donatelli, Mercer.

### Frightened

**BRADFORD COUNTY**—I had just rescued a young weasel a cat had cornered at the Ed Schlosser farm. As I drove down their driveway, I glanced over at the cage and, to my dismay, discovered the weasel had escaped. He first ran up under the dash and hid in the glove box. Then he went behind the rear seat. After spending an hour removing the seat and poking and prodding, I finally convinced him to leave. — DGP A. Dean Rockwell, Sayre.



To Become Effective July 1, 1987 . . .

# New Game and Wildlife Code Enacted

**H**AILING IT as “an historic occasion for Pennsylvania sportsmen,” Governor Dick Thornburgh signed into law House Bill 2079—Act 93-1986—which represents the first codification and major revisions of the Commonwealth’s game laws since 1937. The prime sponsor of House Bill 2079 was Representative Russell P. Letterman of Milesburg, Chairman of the House Game and Fisheries Committee.

## All In One Place

During the signing of House Bill 2079 on July 8 at the capitol, Governor Thornburgh noted, “Now, for the first time, all the bits and pieces of our game laws will be in one place—the new Game and Wildlife Code. It replaces several statutes, including the often amended Game Law of 1937.

“Because Pennsylvania has over 1,300,000 licensed hunters—more than any other state—and because hunting is said to contribute \$500 million annually to the state’s economy, it’s important that our hunting and trapping laws be streamlined and updated. House Bill 2079 does that, while making substantial improvements, including stiffer



**DEER, BEAR and woodchuck hunters will be required to wear a minimum of 250 square inches of fluorescent orange on the front and back combined. An orange hat will be part of the requirement for chuck hunters.**

penalties on those who would violate the law.”

The new Game and Wildlife Code will become effective on July 1, 1987. Among the major revisions is a change in the hunting and furtaking license year to July 1 through June 30—coinciding with the Game Commission’s fiscal year. There is no increase in license costs, but issuing agent fees have been raised from 50 to 75 cents for most hunting and all furtaking licenses.

The new Game and Wildlife Code provides a tough new penalty schedule where summary offenses range up to \$800 and misdemeanors carry fines of



up to \$10,000. Fines for practically all offenses have been increased substantially, some dramatically. For example:

Offenses Involving	Current Penalty	New Penalty
Endangered or Threatened Species	\$200	\$2500
Elk or Bear	\$400	\$ 800
Deer	\$200	\$ 500
Turkey	\$ 50	\$ 200
Bobcat	\$ 50	\$ 300
Waterfowl/Pheasants/ Grouse	\$ 25	\$ 100
River Otter	\$ 10	\$ 300
Squirrels/Rabbits/ Hares/Other Wildlife	\$ 10	\$ 100
Hunting While Intoxicated	\$ 25	\$ 300
Hunting in Safety Zones	\$ 25	\$ 200
Dumping Trash	\$ 25	\$ 300
Littering	\$ 25	\$ 50

Where an individual commits a second or subsequent offense within two years, the offender is subject to a penalty one and a half times the standard fine. (An individual twice convicted of shooting a deer out of season within two years would be subject to a \$750 fine on the second offense.)

Considered among the most important changes incorporated into the new Game and Wildlife Code are provisions allowing the Commission to bring civil suit to recover damage for wildlife killed, habitat destroyed or damaged, or damage to Commission lands and other property.

Causing, or attempting to cause, bodily injury to a Commission officer who is making an arrest, conducting an investigation, or otherwise doing his or her duty under the law, carries a fine ranging from \$1000 to \$5000.

Hunting over baited areas is prohibited, and the new code permits the Commission, upon discovery, to post a baited area against hunting for a period of 30 days after the bait has been removed.

Hunting or trapping while intoxicated currently is punishable by a \$25

fine plus costs of prosecution. However, related provisions of the new law are patterned after those of the Motor Vehicle Code and Fish and Boat Code. Any person with a blood alcohol content of 0.10 percent or more is presumed to be intoxicated. Refusal to submit to a test would result in the automatic loss of hunting privileges for one year. The penalty for being intoxicated is raised to a \$300 fine and loss of hunting privileges.

Recreational spotlighting is further restricted in the new code. Spotting is prohibited entirely during the antlered and antlerless deer rifle seasons. During the remainder of the year, spotting must end at 11 p.m. The penalty for spotting during the regular deer season is \$300. Spotting after 11 p.m. at any other time carries a \$100 penalty.

Under the new Game and Wildlife Code, the Commission quorum is raised from five to six; new Commissioners are limited to one eight-year term, and are not permitted to remain in office until a successor is appointed and confirmed. Interim appointees serving four or more years may not succeed themselves, while interim appointees who serve less than four years may seek a full eight-year term. Incumbent commissioners are not affected by the new restrictions.

### Courses Combined

Mandatory hunter education courses and furtaking training will be combined into one comprehensive course of instruction. A trapper under 12 years of age will not be required to take the comprehensive course if accompanied by an adult licensed furtaker at least 18 years old.

Protective clothing required to hunt deer, bear and woodchucks during the regular seasons has been increased from a minimum of 100 to 250 square inches of fluorescent orange on the front and back combined. Woodchuck hunters will be required to wear a cap as part of the 250-square-inch minimum.

The Commission will have authority to enforce provisions of the Federal Duck Stamp Act, and those cases will



now be adjudicated through the state judicial system rather than the federal courts.

Other notable changes in the new Game and Wildlife Code provide that: once convicted, a person who fails or refuses to pay penalties and costs of prosecution may be jailed for up to 90 days; a person who has harvested and tagged a big game animal may not be afield with a loaded firearm or a bow with a nocked arrow; sportsmen are not permitted to destroy dogs chasing deer or elk; hunters may now use battery operated scopes, and are now required to make every reasonable effort to locate and retrieve wildlife killed or injured; the amount the Commission may spend to acquire new State Game Lands is increased from \$300 to \$400 per acre; toxic and hazardous wastes may not be deposited on State Game Lands; and in addition to an annual allocation of \$100,000 to help protect agricultural lands from deer damage,

the Commission may also allocate another \$100,000 to fence commercial forests.

Under the new Game and Wildlife Code, the Commission is granted broad authority to promulgate rules and regulations, set seasons and bag limits, and govern the conduct of hunters and trappers. As in the past, Game Commission rules and regulations will be promulgated under Title 58 of the Pennsylvania Code.

Game Commission officials remind sportsmen the new provisions of the Game and Wildlife Code will not become effective until July 1, 1987. Until then, the existing Game Law and existing Rules and Regulations as outlined in the 1986-87 Hunting Trapping Digest are applicable. A copy is supplied with each hunting or furtaker license, and hunters and furtakers are well advised to read the digest and familiarize themselves with its contents before going afield.

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## *Books in Brief...*

(Order from publisher, not from Game Commission)

**Steindler's New Firearms Dictionary**, by R. A. Steindler, Stackpole Books, Cameron & Kelker Sts., Harrisburg, PA 17105, 319 pp., \$28.95 delivered. The shooting sports and firearms have changed dramatically over the years. Here is an up-to-date dictionary for shooters and other gun enthusiasts. Definitions are clear and precise, and are complemented by a wide variety of photographs and illustrations.

**Hunting Rabbits and Hares**, by Richard P. Smith, Stackpole Books, Cameron & Kelker Sts., Harrisburg, PA 17105, 159 pp., softbound, \$16.23, delivered. Rabbits and hares are probably the most popular small game animals in the country. Following descriptions of the eight species of rabbits and eight species of hares found in the country are chapters on hunting equipment and techniques, dogs and recipes. Dozens of photographs and state-by-state guides complete the book.

**Measuring and Scoring North American Big Game Trophies**, by Wm. H. Nesbitt and Philip L. Wright, Boone and Crockett Club, 205 South Patrick St., Alexandria, VA 22314, 175 pp., softbound, \$17.50, delivered. This is the first B&C book explaining the club's widely accepted big game scoring methods. All 34 categories of game animals are covered, including instructions and forms for scoring each type of trophy.

**Wildlife Woodcarvers**, by Carl Chapell and Clark Sullivan, Stackpole Books, Cameron & Kelker Sts., Harrisburg, PA 17105, 216 pp., \$44.85, delivered. Based on the television series of the same name, this book covers all the steps for carving waterfowl, from making the pattern to painting the final product. The 250 black and white and 24 color photographs make the step-by-step directions especially easy to follow.



**COMMISSIONERS Thomas Greenlee and C. Dana Chalfant flank Executive Director Peter S. Duncan and Delvin and Albert Miller during ceremonies at the establishment of SGL 303 in Washington County.**

## SGL 303 Created in Southwest

**A** NEW State Game Lands to serve the needs of hunters, trappers and other outdoor enthusiasts in the densely populated areas close to Pittsburgh has been established in southwestern Pennsylvania. Designated SGL 303, the new site is located in Jefferson Township, Washington County, near Meadow Croft Village.

Totaling almost 222 acres, State Game Lands 303 was donated to the Game Commission by brothers Delvin and Albert Miller and their wives Mary and Rita Miller, all of Washington County. The Millers titled the land to the Game Commission to be held in public trust for outdoor recreational activities. Valued at more than \$500 per acre, the Miller tract has been appraised at over \$111,000.

State Game Lands 303 was dedicated on June 4, during an on-site ceremony attended by the Millers, their family, and Game Commission officials from Harrisburg and the Southwestern Regional Headquarters at Ligonier.

PGC Executive Director Peter S.

Duncan, speaking during the dedication, stated, "It is with great pleasure and sincere gratitude that we accept and dedicate new State Game Lands 303. The Millers are, indeed, most generous, and on behalf of the Commission and the citizens of the commonwealth, I want to assure our benefactors that this tract will be administered and managed in the best interests of wildlife, and in the best interests of the thousands of Pennsylvania sportsmen and sportswomen who, in the future, will benefit from this invaluable land gift."

In addition to hunting, trapping and angling, Pennsylvania State Game Lands are available for hiking, nature study, photography, bird watching and many other types of outdoor recreational activities.

The Game Commission now manages five State Game Lands in Washington County totaling 8261 acres. Statewide, the Commission owns 276 tracts in 65 counties having a total of 1,298,567 acres.



# Game Commission Publications & Items

Quantity	Books	Price
_____	BIRDS OF PENNSYLVANIA, by James & Lillian Wakeley .....	\$ 10.00
_____	THE WINGLESS CROW, by Charles Fergus .....	\$ 10.00
_____	MAMMALS OF PENNSYLVANIA, by J. Kenneth Douth, et al .....	\$ 4.00
_____	GONE FOR THE DAY, by Ned Smith .....	\$ 4.00
_____	PENNSYLVANIA WILD GAME COOKBOOK .....	\$ 4.00
_____	DUCKS AT A DISTANCE .....	\$ 1.00
_____	WOODLANDS AND WILDLIFE .....	\$ 2.00
_____	PENNSYLVANIA TRAPPING MANUAL, by Paul Failor .....	\$ 3.00

## Working Together for Wildlife Collectibles

_____	1986 ART PRINT "Country Lane Kestrel" .....	\$125.00
_____	1986 KESTREL PATCH .....	\$ 3.00
_____	1986 KESTREL DECAL .....	\$ 1.00
_____	1985 BOBCAT PATCH .....	\$ 3.00
_____	1985 BOBCAT DECAL .....	\$ 1.00
_____	1984 BLUEBIRD PATCH .....	\$ 3.00
_____	1984 BLUEBIRD DECAL .....	\$ 1.00
_____	1983 OTTER DECAL .....	\$ 1.00
_____	1982 OSPREY DECAL .....	\$ 1.00
_____	1981 FLYING SQUIRREL PATCH .....	\$ 3.00
_____	1981 FLYING SQUIRREL DECAL .....	\$ 1.00

## Wildlife Management Areas

_____	PYMATUNING WATERFOWL PATCH .....	\$ 2.00
_____	PYMATUNING WATERFOWL DECAL .....	\$ 1.00
_____	MIDDLE CREEK WATERFOWL PATCH .....	\$ 2.00
_____	MIDDLE CREEK WATERFOWL DECAL .....	\$ 1.00

## Pennsylvania Bird and Mammal Charts

_____	Set 1 (4 charts) 20" x 30" .....	\$ 4.00
_____	Set 2 (4 charts) 20" x 30" .....	\$ 4.00
_____	Set 3 (8 charts) 11" x 14" .....	\$ 4.00
_____	GAME NEWS Cover Prints (4 by Ned Smith) 11" x 14" .....	\$ 4.00
_____	State Symbols Chart 20" x 30" (Deer, Grouse, Hemlock, Laurel) .....	\$ 2.00

## SPORT Items

_____	Bronze SPORT Tie-Tac/Lapel Pin .....	\$ 3.50
_____	SPORT License Plate .....	\$ 4.00
_____	SPORT Patch .....	\$ 1.00

## GAME NEWS

_____	GAME NEWS Binder (Holds 12 Issues) .....	\$ 5.00
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## Waterfowl Management Stamps (Voluntary)

_____	1986 Waterfowl Management Duck Stamp .....	\$ 5.50
_____	1985 Waterfowl Management Duck Stamp .....	\$ 5.50
_____	1984 Waterfowl Management Duck Stamp .....	\$ 5.50

Mail orders along with remittance to Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567. Checks should be made payable to Pennsylvania Game Commission.

DO NOT SEND CASH

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# A Hunter's Timing



**AFTER SOME time afield, my dulled senses begin to work like well-lubed instincts. I'm able to spot the unusual line that marks the curve of a whitetail's rump, distinct from the forest growth.**

**E**ACH FALL, as the hunting seasons begin, I feel like the tin woodcutter of Oz, before Dorothy found him: rusty. From a long summer of disuse, my hunting skills are creaky, sluggish to start. It takes a few drops of "oil," I find, in the form of the first days of archery season, to get the machinery operating smoothly again. But in that warming up period, I might be excused if all the cogs don't mesh, the gears grind, and the engine runs in fitful starts.

Though we all count ourselves as hunters, even in the off-season, we forget the skills that make us so are ones that need constant use to stay in top working order. We don't realize how we've neglected them until we suddenly try to run at full speed on opening day and find we can manage only a slow chug instead.

Take walking, for instance. We may think that what we've been doing all summer on sidewalks and patios is walking, but it's not. That measured stride on flat ground, putting our full weight down with each step, one foot ahead of the other, is little like the walk

a hunter needs to get around in the woods. The first days afield each fall find me still city walking—cracking branches underfoot, stumbling over rocks and roots, watching the ground ahead instead of scanning the terrain for game.

The trick to walking like a hunter, I've been told, is to see with your feet, so your eyes can look elsewhere. After all, it's the eyes that hunt, the feet only carry them along, and the feet should look out for themselves. Though my early season gait shows I'm out of practice, in a few days I'll adjust to feeling again—even through bootsoles—whether it's safe to put my weight down or if I'll snap a twig. My strides will become uneven, determined by balance over the rough ground, and I'll reacquire a stalker's grace.

## No Preparation

Lazing in a lawn chair, listening to summer ball games, is no preparation for sitting long hours on a deer stand. That's why, at the start of the season, I slap at mosquitoes and wriggle in my seat. I check my watch at seemingly interminable intervals and find they're only five minutes long. I'm ready to give up when I've been on stand for an hour and haven't seen any deer. The trouble is, I'm still on town time, my clock ticking way too fast for the woods. But as I spend more hours there, I'll slow to the rhythm of the outdoors, regain my patience, my ability to be still. I know if

## Another View...

by Linda Steiner



I start to fidget again, I'll have the chipmunks to scold me, as well as myself.

A hunter's hearing and eyesight need to be finely tuned so he can separate the information he needs for the hunt from the background clutter. But on opening day, I think the rustle of every red squirrel is a buck approaching and the step of a deer is an acorn falling. I'm either unnecessarily alerted or caught unaware. But give me some time afield and those dulled senses will work like well-lubed instincts. I'll recognize the "different" sound of a whitetail's tread and be able to spot the unusual line that marks the curve of its rump, distinct from the forest growth.

Surely my ancestors never lived in trees, not the way I dislike having my feet off the ground. But treestands are such an effective way to bowhunt that each autumn I steel myself and go skyward. After the season's end, I quickly lose my sense of ease at being in the branches. Each autumn I have to begin anew.

Climbing into a permanent stand, with steps, is bad enough; inching up a tree with a portable stand is worse. Though I use a hand climber and safety belt and take every precaution, the first time each season that I find myself ten feet above the ground, I can barely let go of the tree to haul up my bow. One problem is that my eyes are at fifteen feet, not the ten of my toes, and it looks like fifty. But let me climb for a week and the lofty perch will feel natural again. I can even look a squirrel in the eye with confidence, while I stand at his front door.

### Unearthly Hour

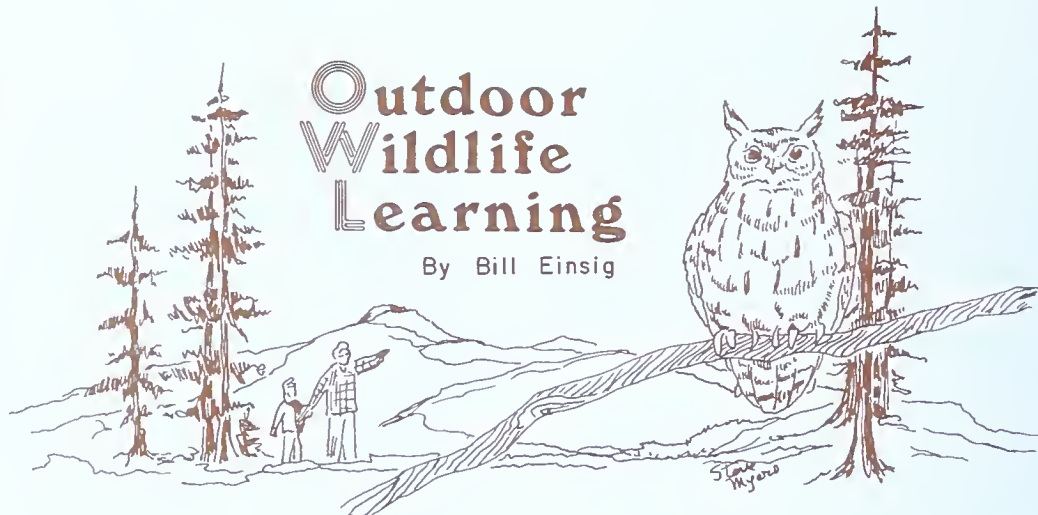
I have never forgiven game animals for the fact that they get up so early. For someone who likes breakfast at eight, rising at an unearthly hour to be on stand before the sun is a true sacrifice. Waking up opening day is no problem, there's so much anticipation, but between that excitement and becoming accustomed to the new schedule are some difficult mornings. On watch, my eyelids grow heavy just when I want to



*Pennsylvania Game Cookbook* is a 96-page collection of delicious recipes submitted by **GAME NEWS** readers. It includes methods of preparing all kinds of game available in Pennsylvania, plus some recipes for moose, elk, and other species. \$4.00 delivered from **GAME NEWS** office.

be most alert. I'm thankful for a chilly dawn, to drive the drowsiness away. I know it's just a body adjustment, because by season's end I'm wide-eyed before the alarm rings, in synch with the timing of being a hunter.

The sportsmen of October are out not just for a chance to take game, but for a practice spin in the first hunting season of the year. They're taking their hunting skills for a trial run, after the long months in summer storage, polishing off the rusty spots, feeling how good it is to be in the woods again. They know there will be a lot of hunting in the weeks and months ahead, and they want their machinery to be humming.



## Pennsylvania Flaming Foliage

**T**HERE IS no more widely recognized signal of autumn's presence than the sweeping panorama of colorful foliage. What is this phenomenon all about? What causes it? Does it occur elsewhere? Is it of any value to the plants themselves?

Four groups of pigments are primarily responsible for autumn colors. They are chlorophyll, carotene, xanthophyll, and anthocyanin. The spectacular display we see each October results from a combination of those pigments in varying amounts.

Carotene and xanthophyll are orange and yellow pigments found in leaves all year. They do not form just in the autumn. Like chlorophyll, these two pigments are stored in small structures, called plastids, within most leaf cells. Chlorophyll is so abundant in these cells that the yellows and oranges cannot be seen under normal conditions. However, if any condition causes chlorophyll to break down, the carotenes and xanthophylls reveal themselves, giving the leaf a characteristic yellow color.

Many factors can cause such a change. Since light is necessary for building the chlorophyll molecule, anything that blocks light from reaching the leaf will cause the leaf to turn yellow. Droughts, mineral deficiencies, insect infestations, and many other disturbances can cause leaf yellowing due to a breakdown of chlorophyll.

Perhaps the easiest way to demonstrate this process is to cover a portion of a living leaf with aluminum foil to block the sunlight for a week or more. After that time period, the covered portion will be yellow while the exposed portions will remain green.

So one cause of autumn leaf coloration appears to be the breakdown of chlorophyll that unmasks the hidden carotenes and xanthophylls that were there all the time. Tulip trees, sycamores, birches and maples are examples of trees that add brilliant yellows to the autumn spectacular.

Anthocyanins, on the other hand, are different. Under suitable conditions, this pigment forms from stored sugar in the leaf cells. It is not located in the plastids that store chlorophyll or the other pigments. Instead, anthocyanin is found in the watery cell sap with the stored sugar. Some of the plants with red anthocyanin pigments in the fall are sumac, poison ivy, black gum, dogwood and many oaks.

A good microscope can reveal these different pigment locations. Green or yellow leaf cells contain small, granular bodies scattered throughout an otherwise colorless plant cell. But a cell from the wandering Jew (*Tradescantia*) will show red pigment dissolved in the cell sap of the central vacuole.

The sequence of events leading to the grand show of fall colors, then, goes something like this. Late in the growing season, the production of chlorophyll slows and eventually stops. At the same time, the destruction of chlorophyll molecules continues at an even faster rate. As the chlorophyll disappears, carotene and xanthophyll are revealed briefly before they too are destroyed and the leaf turns brown.

During the same time, anthocyanins may develop in some species if environmental conditions are favorable. Cool temperatures



and bright days favor the formation of these red pigments if sugar concentrations are high. Frosts are not necessary for good color development and, in fact, heavy frosts can reduce the amount of coloring in the foliage. However, cool temperatures are important.

If all environmental conditions are right, the red anthocyanins reach their full development when the chlorophyll disappears, giving the red and yellow mix to the flaming foliage we expect to see each October. But, of course, the show is only temporary, a final showy stage in the death process of the leaves themselves.

Leaf coloration, then, occurs as leaves die. The value to the tree is not really related to the coloring but to the seasonal death of the leaves.

Winter in the temperate zone is a harsh time. Cold temperatures lock most water into forms of ice that are not available to plant roots. Winter is a time of drought for plants and most must conserve water in order to survive. Conifers have water-saving needles or scale-like leaves. Succulents store water in their heavy leaves. Many broadleaf plants simply shed their water-wasting leaves and wait for spring to provide a dependable water supply once again.

Some deciduous trees in other climates do change colors as they die and fall. However, the total effect is not as dramatic as it is in the Northeast. For example, Florida has a sub-tropical climate. Winters are obviously not cold like ours and water is not

locked into ice for long periods of time. It would seem probable that most plants could continue to grow actively throughout the year.

Some Florida trees do that. Others, however, are truly deciduous and lose their leaves when temperatures fall, and some of these go through color phases as they die. The forest type, though, is chiefly pine with scattered broadleaf trees and shrubs. Florida simply does not have the broad expanse of hardwoods characteristic of Pennsylvania. They therefore do not have the intensity of color that we have, even though some of their species produce scattered blotches of color.

## A Fall Walk Scavenger Hunt

Take a walk in mid-October and have a scavenger hunt for autumn leaves and plants. Here are a few suggestions to try to find:

- a red leaf (CAREFUL! Poison ivy has a beautiful red leaf in the fall.)
- an orange leaf
- a still-green leaf
- a leaf with at least two colors
- the leaf with the greatest number of colors
- a brown, dead leaf
- a tree with only one branch changing its leaf colors
- a leaf partly eaten by insects
- a leaf with leaf miner tunnels
- a leaf with insect galls
- a plant with fall flowers
- a plant with fall fruit

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**COMMISSIONER ROY WAGNER, Jr., right, was recently named York County Conservationist of the Year, at that county's Federation of Sportsmen's Clubs banquet. At the same meeting, GAME NEWS columnist Bill Einsig was named Conservation Educator of the Year, and Senator Ralph Hess was named Conservation Legislator of the Year.**

Bob Mitchell



**O**CTOBER is a frosty, golden morning with a ruffed grouse bursting from an aspen thicket. It's cold crisp apples, Halloween pumpkins, fresh pressed cider, and migrating Canada geese silhouetted against a harvest moon. It's a forked-horn, wet-nosed whitetail pawing the forest floor for acorns, a flock of mallards wheeling into a decoy set at dawn, and a woodcock twittering overhead as the sun drops below the western horizon. October is all of those things that make hunting the special pastime it is. Too bad it comes but once a year.

*October 1*—After a morning behind the desk working on monthly reports, picked up and disposed of a vehicle-killed deer in the New London area. In the afternoon, patrolled in West Goshen and Westtown townships.

*October 4*—With the archery deer hunt scheduled to start tomorrow, I spent the day patrolling in West Fallowfield, London Britain, New Garden, and East Marlboro townships. Except for a pair of soon-to-be hunters checked while they were doing some pre-season scouting, my patrol was relatively quiet.

In the evening, Deputy Jim Valentino and I staked out a field in the vicinity of West Chester where we previously had problems with night shooting. Although there were deer in the area, no attempts were made to take any illegally.

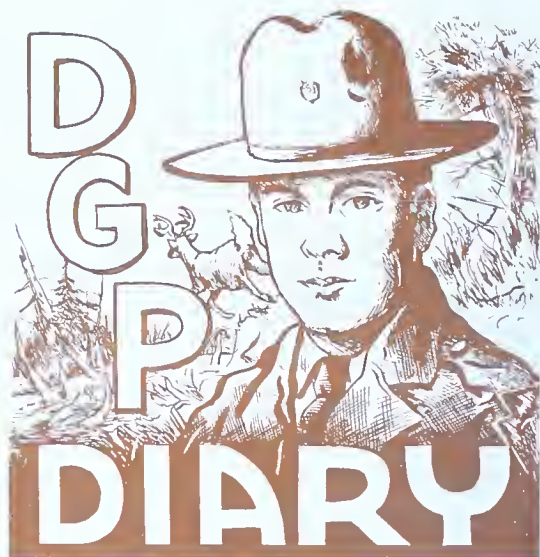
*October 5*—Got in from last night's stakeout at about 3 o'clock this morning. After a few hours sleep, I was partolling the southern end of the district. Bow hunting pressure was light, with the majority of the county's archers apparently opting for the big woods upstate—at least on opening day.

In the afternoon, I assisted volunteer instructors Bill Yetter, John Pawlowski and Lou Metzger with a hunter education course at the Atglen Sportsmen's Club.

Finished the day patrolling near Oxford and Nottingham.

*October 7*—Spent the morning in the office reviewing monthly deputy reports and returning phone calls. After disposing of vehicle-killed deer in the West Chester and Landenberg areas, patrolled for archers in West Nottingham township.

*October 8*—Today, I attended a meeting



**By Keith Sanford**

**District Game Protector  
Chester County**

with members of the staff from the University of Pennsylvania's veterinary school in London Grove. An expanding deer herd and a large, overwintering flock of Canada geese is beginning to cause severe damage to crops on the center's farmland. I offered several suggestions as to how the problem might be resolved, one of which was recreational hunting during the statewide gunning seasons. This method is time proven, inexpensive, and effective—especially when it's incorporated into a comprehensive game management plan which utilizes other control measures during non-hunting months. However, because hunting is a controversial subject in many areas of the country, implementing it in situations such as this can be difficult. It is hoped the university will be able to come up with a combination of techniques compatible with their particular concerns and capable of solving their problem.

In the evening, I assisted Reverend Lou Troester with a hunter ed course at the Methodist Church in Oxford.

*October 9*—I was on the telephone this afternoon when the operator cut in and informed me I had an emergency call. Within a minute, county police radio-phoned me that one of my deputies was in need of assistance in Highland township. When I arrived on the scene, I found three hunters in the custody of Deputy Cary Haupt. Cary had been working in the Gum Tree area when he observed the individuals



shooting doves in a nearby cornfield. Being in plain clothes and in an unmarked vehicle, he took the opportunity to sit back and observe their actions. It didn't take him long to determine that at least one hunter in the party wasn't abiding by the daily bag limit. When he checked the trio, one was found to be in possession of 19 birds and another had 13. The limit on mourning doves is 12 per day. Both violators settled their fines on field receipts and were required to relinquish their illegal birds.

In the evening, I was at the Southern Chester County Sportsmen's and Farmers' Association to assist with the presentation of the district's annual furtaker education course. Providing proper instruction to our first-time furtakers is just as important as is educating beginning hunters. Tonight, we covered such topics as the role of trapping in wildlife management, trapping ethics, trapper/landowner relations, and the Game Law. We'll complete our course on Saturday with some hands-on instruction in the field.

*October 11*—With the help of retired Deputy Paul Sandoe, I spent the entire day stocking hen pheasants throughout the district. I hope some of the birds will survive the upcoming winter and produce broods in the spring.

*October 12*—Spent the bulk of the day helping volunteer instructors John Conner, Charlie Travis, and Jack Curtis with the furtaker ed course. Our round robin format provided each student with first class instruction in coon, fox, and muskrat trapping, trap preparation, and pelt handling.

After wrapping up our class, I headed down to Pennsbury township where I spent the remainder of the day checking archery deer hunters.

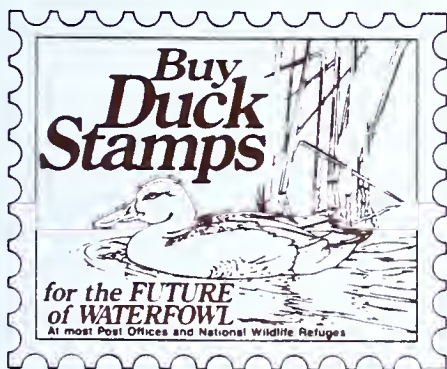
*October 15*—Spent the morning on the phone and completing prosecution reports. The remainder of the day I patrolled in the Landenberg and Oxford areas.

*October 16*—Received a call this morning from Deputy Larry Henck. He had obtained information on some individuals in the Caln township area who allegedly had jacklighted two deer in my district. According to his informant, the venison and parts of the illegal whitetails were being stored at our suspects' home. Together, Larry and I spent the day attempting to verify this and meeting with staff from the county district attorney's office relative to the case.

In the evening, held a deputy dinner meeting at a restaurant in the Thorndale area. When I call a gathering such as this, I like to invite individuals who work with the officers in my district throughout the year. In addition to my southern Chester County deputies, conservation officers from northern Chester and Lancaster counties, Maryland, and Delaware were also in attendance. An evening such as this is a good way to share thoughts and ideas on game law enforcement and to say thanks to the officers who assist us in protecting our state's wildlife.

*October 17*—About a week ago, Delaware Conservation Officer Terry Yingling arrested several individuals on spotlighting offenses in the Beaver Valley section of New Castle County, Delaware. When apprehended, they were about three miles from the area in my Pennsylvania district where back in August two deer were poached with a shotgun and 00 buckshot. While searching the violators' vehicle, Terry uncovered a 12-gauge double barrel shotgun, loaded with two rounds of buckshot. The shells were of the same make as the fired case I found at the scene of my Pennsylvania violation. Terry seized the weapon as evidence in his case and, on a long shot, I took it to the State Police Crime Lab in Lima, Delaware County. I'm hoping they'll be able to match the firearm to the shell that I recovered at the end of the summer.

At 5 p.m. I met with District Game Protector Ed Gosnell, Deputy Harry McKinney, and Student Officer Stan Norris. Together, we began interviewing the suspects in our Caln township deer poaching incident. When confronted, the two individuals produced several packages of fresh cut venison and a fresh deer hide. Also, in the trunk of one of their vehicles, we found deer



blood and hair. However, their account of how they came into possession of these items didn't match that of our informant. We ended up interviewing five more people before we learned the true story—that our two suspects had indeed poached both deer at night with a spotlight. We completed our investigation at midnight, with most of the questions concerning the violations answered and sufficient evidence to make a good case.

*October 19*—After patrolling in the Cochranville area, Deputy McKinney and I met with the defendants from our deer poaching investigation of two nights ago. Each was charged with possessing parts of a deer unlawfully taken and for making use of an artificial light to kill a deer. The fines and court costs for all four violations came close to \$1000. In addition, each defendant lost his hunting and trapping privileges in Pennsylvania for three years.

*October 21*—Was at State Game Lands 182 in Berks County today to fire the annual handgun qualification and shotgun familiarization courses.

*October 23*—Spent the entire day at our office in Reading where I attended a regional law enforcement conference. In the evening, attended the annual small game meeting of the West Chester Fish and Game Association. The keynote speaker was Commission Game Biologist Jerry Hassinger, who presented an excellent slide program on wildlife habitat.

*October 24*—With the opening of the duck season this morning, Deputy Cary Haupt and I patrolled the Octoraro Creek area. A fair number of gunners were out, and many had green-winged teal and wood ducks to show for their efforts. No violations were noted.

*October 25*—Today, I was back at the State Police Crime Lab in Delaware County. Unfortunately, the lab's forensic firearms

specialist wasn't able to match the shotgun and empty shell I had submitted for analysis. According to the lab report, the shell had been fired from an automatic or pump action shotgun, not the double barrel that Conservation Officer Yingling had seized. If we could have linked the fired shell to the gun, chances are we would have ended up with a prosecution.

*October 26*—Patrolled throughout the district for duck, squirrel, and archery deer hunters.

*October 29*—Disposed of a vehicle-killed deer in the West Chester area, then patrolled for squirrel and deer hunters in Birmingham township.

*October 30*—After retired Deputy Paul Sandoe and I finished stocking pheasants in the Cochranville area, we decided to take a lunch break. While munching a sandwich in the vehicle, a young man approached with information about an individual who had been squirrel hunting in the woods nearby. A doe had approached to within shotgun range. I'm sure you can guess the rest of the story. He had never killed a deer before, and, with the opportunity now in front of him, couldn't resist pulling the trigger. Deputy Cary Haupt and I visited the suspect this evening and questioned him about his activities over the past several days. By the time we were through, the defendant admitted killing the deer. He turned over the illegal venison and paid his fine on a field receipt. If more people were willing to provide us with this type of solid, reliable information, we could do a much better job of enforcing the Game Law.

*October 31*—With the whitetail rut in full swing, I spent the morning picking up and disposing of three vehicle-killed deer. All were bucks which had been hit in the Unionville and West Chester areas. In the evening, attended a deputy dinner meeting in Lancaster County hosted by District Game Protector Ed Gosnell.

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## Whooo? Yooo!

The ears of the great horned owl may have the most acute sense of hearing in the animal world. They can pick up the faint sound of a beetle rustling through the grass more than 100 yards away.



THE FIRST TIME I gathered wild nuts was a disaster. I had read that hickory nuts were good to eat. There was a hickory in the hollow, so one day I carried a bucket there. I filled the bucket with the smooth hard nuts. Back home I set to shelling them, placing them one at a time on the chopping block, rapping them with a hammer, and digging out the meats. Fortunately, I succumbed to the urge to taste one before I got too far. I popped the kernel into my mouth, and spat it out immediately. That nut was the bitterest thing I'd ever tasted.

It turned out that I had gathered from under a bitternut hickory, the only hickory whose nuts are not sweet. That was many autumns ago. Since then I have learned to identify the excellent-tasting hickories as well as many other wild trees that bear delicious nuts.

### Play a Chord

Nuts are compact bundles of energy designed by nature to nourish a seedling plant in the first stages of life. A nut tree flowers in the spring, and its flowers, once they are pollinated, become fruits. The fleshy outer part of a fruit is its husk, or hull. Beneath the husk lies the shell — tough, woody, hard to crack. And inside the shell is the nutmeat, or kernel, the object of the forager's desire.

Nut trees are easy to learn, and, unlike mushrooms, there are no poisonous look-alikes to give you pause. Nuts are nutritious, rich in protein and minerals, and low in saturated fats. Their distinct, wild flavors add interest to any recipe that calls for domestic nuts. It may be strictly psychological, but I far prefer wild nuts to tame. Where domestic nuts sound a single flavor note on the palate, wild nuts play a chord. The difference in taste between woods-grown black walnuts and a supermarket bag of California walnuts is like the difference between fresh-squeezed lemonade and a frozen concentrate, or Grandma's scratch cake recipe and a packaged mix.

It's easy to get started on foraging for



Chuck Fergus

nuts. Equipment is cheap and simple: a burlap bag or pail for the heavy nuts, and a basket, light cloth bag, or rucksack for the smaller ones. Before gathering nuts on private land you should ask permission.

You can pick nuts any time from early autumn until snow covers the ground. Don't try to walk through the woods scanning the ground for nuts — instead, learn to spot nut trees, which are distinguishable from a distance. They often have telltale silhouettes, foliage, or bark. Some grow mainly in rich, moist soil along rivers, others on the edges of woodlots, still others in upland forests.

After my bitternut fiasco, I decided to get my hickories straight. The bitter-nut is *Carya cordiformis*; unlike the sweet hickories, the bitternut's trunk has a smooth bark. The nut's husk and shell are thin. Probably the best-tasting hickory is the shagbark (*C. ovata*). It has a rough and unmistakable bark: pale gray and split into long, vertical, whiskery strips that curl from the trunk at either end. The shagbark's leaves, divided into five leaflets, glow a bright, candle-flame yellow in early fall. The fruit is egg-shaped and about an inch long; a large nut sits inside a thick, four-sided husk that splits apart as it ripens. The shellbark hickory (*C. laciniosa*) bears an equally sweet nut. It, too, has a rough, curling bark; it favors lowlands and river bottoms. The mockernut hickory

(*C. tomentosa*) and the pignut hickory (*C. glabra*) also have fine nuts, although less sweet and smaller than those of the shagbark and shellbark.

The word “hickory” comes from *pohickery*, an Algonquin word. The Indians would pound the nuts in a mortar, shells and all, add water, and strain the mixture. They added the resulting milk to venison broth or used it in cornmeal cakes and hominy.

The best way to shell a hickory nut is to hold the huskless nut on its side on a hard unyielding surface, such as a vise, a block of steel, or a brick. Position the nut so that the seam around its perimeter faces up, and tap the seam with a hammer until it cracks. Then, with a nutpick, tease the meat out of the two convoluted inner chambers.

In years when hickories bear plentifully, a single shagbark can yield a winter’s supply of nuts. I harvest in early October, after winds have shaken the nuts to the ground. I waste no time, because squirrels, chipmunks, and turkeys relish the nuts, too. Hickory nuts are excellent in a white or a yellow cake, or in a plain cookie, from which their subtle sweetness emerges. As with most nuts, baking helps bring out the flavor.

### Nut of Jupiter

The genus name for the walnut commemorates the taste of its nut: *Juglans* is a contraction of the Latin *Jovis glans*, “nut of Jupiter,” or a nut of the gods. The black walnut grows to 100 feet tall, and its trunk may exceed 3 feet in diameter. Deep furrows mark the dark-brown bark; the foot-long, spicy-scented leaf is composed of 7 to 17 leaflets, paired except for the terminal one. Look for walnuts in rich soils of river bottoms, in farm woodlots and fence-rows, and in fields reverting to forest. They are usually the first trees to drop their leaves in the fall. The nut is packaged inside a round, fleshy fruit 2 to 3 inches in diameter, which is green at first but becomes black and rotten looking with age. The fruits hang in twos and threes, weighing down the branches; when the wind gusts, they

thud to the ground with a sound like horses galloping.

At any rural gathering in the fall, someone is likely to show up with brown-stained fingers, the result of removing black walnuts from their husks. One way to shuck the viscous wrappers is to grind them underfoot; you then pick out the nuts while wearing rubber gloves. My neighbor has his own technique. “I arrange the fruits in a long row about a foot wide,” he told me, “and go back and forth over them with my car until all the husks have been crushed. Then I work through the mess with a leaf rake and a hoe, and pick out the nuts with fireplace tongs.” Still, he usually gets some stain on his fingers. “Household bleach washes fresh stain away,” he claimed, “but if it sets, you have to wear it off. That takes two weeks.”

Black walnuts and most other wild nuts should be dried for several weeks before opening. Spread them on newspapers in a warm, airy place: an attic, a room with a woodstove, or the top of a shed if it is secure from squirrels and mice. Dry, the meats withdraw slightly from the shell, making extraction easier. Although walnut shells are thick and hard, they are not overly difficult to crack. Hold the nut edge-up, as you would a hickory, and hammer it on the seam.

Nuts store best in the shell. Whole nutmeats do not become rancid as quickly as those cut into pieces. Once shelled, nutmeats should be kept in jars with tight-fitting lids; for extended storage, put the jars in the refrigerator or freezer.

Black walnuts impart their robust flavor beautifully to cakes, cookies, nut breads, and fudge. My neighbor, who picked eight bushels of the uncracked nuts last fall, likes to eat them straight. “Best nut in the woods,” he says.

One day I found a small walnut tree,

A slightly different version of this article originally appeared in Blair & Ketchum's *Country Journal*.





limbs sagging with fruit. There was something different about this tree. The bark was a shade paler than a black walnut's. The leaves looked similar, but the fruits were oblong instead of round, and covered with sticky hairs. A quick check in my field guide convinced me that I had found a butternut tree, *Juglans cinerea*, also called the white walnut.

The butternut's sticky husk conceals a rough, flinty shell 1½ to 2 inches long, studded with ridges and knobs and having a sharp point at the end. The meat is delicious, like a mild black walnut with a hint of banana. Free it by hammering the nut on its point. Some foragers half-fill a burlap bag with butternuts, soak everything in hot water for half an hour, and hang the bag up to cool; that treatment supposedly makes the nuts easier to crack and keeps the meats in larger pieces.

### Raw, Cooked, Ground

Indians ate butternuts raw, cooked, and ground into a meal for baking in cakes or for thickening porridge. The Iroquois extracted the seed oil, cooked with it, and used it to dress their hair. Early in the Civil War, Confederate soldiers from West Virginia, Kentucky, and Tennessee boiled butternut twigs, leaves, buds, and fruits to make a dye

that imparted a tan color to their uniforms; henceforth those troops were called "butternuts."

I like butternuts in whole-wheat pancakes, cakes and cookies, and banana bread. Some foragers consider pickled butternuts a delicacy, gathering the immature fruits when they reach full size in June or July and preserving them in vinegar.

Several autumns ago a farmer showed me a fencerow with some straggling, head-high shrubs. "We used to pick hazelnuts from these bushes," he said. "That was fifty years ago." We found only a handful of the reddish-brown nuts; the shrubs were gradually dying out in the shade of taller cherries and oaks.

Hazelnuts come in two varieties: the American (*Corylus americana*) and the beaked (*C. cornuta*). Both grow in pasture clumps, forest clearings, and woods edges. The shrubs' leaves are narrowly pointed or heart-shaped, 2 to 5 inches long, and toothed at the edges. A flaring, leaflike husk partly encloses the nut on the American hazelnut; the beaked hazelnut's wrapper covers the nut entirely and ends in a long tube shaped like an elephant's trunk.

### Wild Version

Hazelnuts are the wild version of the cultivated filbert. Crack them by tapping the bottom end with a hammer, or use a nutcracker. Meats are crisp and delicious, excellent raw, roasted, or ground into flour. Squirrels, chipmunks, mice, deer, jays, and grouse eat the nuts, so a forager must strike early. My farmer friend recalled the best time of year for gathering: "We did our hazelnut picking about the time we planted winter wheat — from the tenth of September to the fifteenth."

Beech trees do not fruit every year, but in a good fall they blanket the ground with their small, triangular nuts. The American beech (*Fagus grandifolia*) grows in deep woods. It is a handsome tree with smooth, pale gray bark irresistible to inscription-bent boys with pocketknives. Its lance-shaped,

## **GAMEcooking Tips**

### **Chili Soup**

- 1 pound venison, any cut
- 1 teaspoon oregano
- 1 20-oz. can Italian tomatoes, cut up, plus juice
- 1 16-oz can kidney beans
- 1 cup fresh mushrooms or 1 8-oz. can mushrooms
- 1 6-oz can tomato paste
- 1 envelope dry onion soup mix
- 1 teaspoon basil
- 1 teaspoon cumin
- 1 teaspoon Old Bay Seafood Seasoning

Prepare as for Authentic Chili (See June GAME NEWS), up through shredding the meat. After you have shredded the meat, add it with reserved liquid (approximately 1 quart) to all remaining ingredients in the slow cooker or large pot, and simmer one hour. This makes a delicious hearty one-dish meal. It is even better made a day in advance. Serve with crusty French bread and a salad. Serves four.

—FROM WILD GAME COOKERY  
BY CAROL VANCE WARY

tooth-edged leaves turn a clear soft yellow in autumn. The nuts, which drop in October, are no bigger than a fingertip. Enclosed in soft, burrlike husks, they can be pried free with a thumbnail. The sweet meats make a good snack for a grouse or squirrel hunter. Fresh nuts keep for only a few weeks unless carefully dried.

My woods is dotted with gray, hollowed-out stumps—the grave markers of American chestnut trees. The chestnut (*Castanea dentata*) was once the most common tree from Maine to the Gulf of Mexico. In the late 1800s a fungus accidentally imported from the Orient began killing off America's

chestnuts, and within 50 years most of the trees were dead. The fungus—still with us today—spreads by its wind-blown, microscopic spores. The spores enter the tree through a wound, and the fungus kills by girdling the trunk.

Along a lane near my house, chestnut saplings have sprouted from the root systems of bygone trees. The saplings grow to 15 or 20 feet and reach a girth of about 6 inches before the blight finds and kills them. Each fall, as their narrow, oblong, strongly toothed leaves turn a rich yellow, the taller trees bear a few round, tan fruits studded with spines. Inside each fruit are two or three dark brown, egg-shaped nuts, 1/2- to 3/4-inch long. In October, when the burrs spill their contents, I get a pint or so of nuts.

Our native American chestnuts have a mild yet rich taste, sweeter than the Chinese and European chestnuts found in stores. I eat mine where they fall or carry them home and toast them on the woodstove. One of these years, if I'm lucky, I'll get enough to stuff a Thanksgiving turkey.

It's a rare year when all of the different nut trees bear abundantly. But if the shagbarks don't fruit, the mockernuts or shellbarks may. And if the walnuts in the valley get nipped by a spring frost, the butternuts on the hills may go unscathed. There are always some nuts waiting out there, and it's always worth the time to go check.

Foraging for wild nuts is, like most pleasures, a complex one. It gets me outdoors during a splendid time of the year. It gratifies the squirrel in me, the hoarder who likes to watch his food stores building before the snows start to fall. I like the taste of wild nuts and the exotic quality they bring to familiar foods. I even like to crack nuts; it keeps my hands busy while I talk to wife or friends, and when I'm alone on a quiet day it lets my mind fly to distant places and times.



Archers chances for . . .

# BIG BUCKS

By Keith C. Schuyler

Photos from the Author

**W**HAT ARE AN archer's chances of taking a really big buck during the special October season or the extra days allotted after Christmas? So many variables affect a response to this question that it deserves an in depth look.

We know that some bow hunters do bring home really big racks.

On the plus side, they get first crack at them in the early season. Weather is usually pleasant throughout the month. For the first two weeks, at least, deer are less alert than after small game hunters have invaded their territories for a month or more before the firearms season. Because of fewer hunters in the woods, the animals are more apt to follow their habitual activities, and thus are more predictable. During the final week, there will be some rutting activity.

On the minus side, we know that big-racked bucks are the most wary of all deer, as it takes a few experience-gaining years for them to develop really large antlers. At their best, toxophilites are limited by the range of even the most modern adaptations of the primitive hunting arm. Woodland visibility is reduced by the foliage still clinging to trees and bushes in mid-autumn. Some terrain does not contain enough nutrients to produce the massive antlers found on animals in more favorable territory. Generally, where most deer are found, heavy hunting reduces the opportunity for deer to survive long enough to acquire real picture-book racks. The area you hunt may be too far from your home for effective scouting. Trying to hit anything with an arrow is a special challenge under the best hunting conditions.



**BUCKS LIKE THIS** one can be found in every county, but they are most apt to frequent scattered wood patches in farming country where the living is easy.



**DICK KUDRANSKI with the beautiful 14-point 195-lb. trophy he took with a bow in the Pittsburgh area. Note the unusual branching of both brow tines.**

If we are together on these observations, it would appear that the answer is almost obvious. It is unlikely that the late season offers much hope for an exceptionally big rack if we realistically piece together the pros and cons in the preceding paragraphs.

That leaves us with the October season to score big.

It would appear, then, that all we need to do is find an area where: hunting is light, feed of the right kind is plentiful, there is a good population of deer, and hunting is permitted. This oversimplification of a formula to find a trophy animal may not be far off the mark — if we can find such an area.

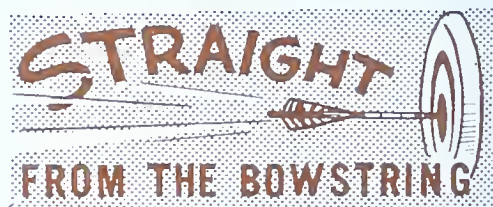
A look at where most of the big racks have been taken provides a clue. For example, although records are not completely up to date, out of well over 600 racks measured in this state, only 14 have come from Potter County, and those were well down the list in the scoring. These were gun kills. No bow

hunters, to my knowledge, have taken one for the record book from "God's Country." Yet, Potter County has produced the highest harvest of deer, both antlered and antlerless, for many years. The most recent record book entry was for a buck shot in 1979; before that it was one in 1963. The balance were taken in 1941 and before — back to 1924. I can find only 21 for McKean County, adjoining Potter on the west, and eight for Tioga County, on the east. Both produce big deer harvests. All were gun kills, mostly taken 20 or more years ago.

Obviously, deer numbers are no positive indication for a likelihood of finding one for the record book.

On the other hand, trying to pin down any section of the state as a producer of large antlered animals becomes difficult, even when you know where some have been taken. One interesting development which emerged in looking for answers is that, of the 50 largest deer racks taken by both guns and bows, two-thirds have come from border counties. Yet Bradford, with four of the top gun trophies, has produced only one for an archer. Schuylkill County, with four archery kills near the top of the list, has produced no outstanding gun trophy. There seems to be no relationship between guns and bows insofar as the number of top trophies goes. Sullivan County, just below Bradford, is the only other county with more than one deer in the top scores, two, and has produced no archery kills of exceptional note.

Surprisingly, half of the biggest deer racks produced by bow hunting have come from the southeast portion of the state. One-third came from the four counties south of Erie plus Allegheny and Westmoreland. The rest, as with





gun trophies, were scattered all over the commonwealth, with no more than one to a single county. This includes the top 20 gun trophies and the 30 top bow racks, according to my records as of 1983.

As no definitive pattern has been established, let's go to one of the better counties where Richard Kudranski took a mammoth 14-point last year, not far from his home in Pittsburgh. A farmer friend had told him of the big one, and Dick spent considerable time scouting the area before finally seeing the buck. He kept tabs on the animal's movements between its bedding and feeding area, and made plans despite expected competition from other archers who also had learned of the big one.

Morning and evening he hunted after the season opened, passing up several bucks, one an 8-point that tempted him with a standing shot at 15 yards. Finally his patience was rewarded, and he saw the big buck for the first time in season although it didn't present a shot. The following morning, October 18, he was in his treestand when the huge animal came walking through. A spine shot dropped the deer in its tracks. What Dick had thought was a 12-pointer proved to be 14, as each brow tine was branched in an unusual configuration. The buck weighed 195 pounds, field-dressed, at B&M Sports Shop in Plum Boro. The rack scored  $143\frac{7}{8}$ . Game Commission officers said it was  $3\frac{1}{2}$  years old.

### Seventh Bow Buck

It was Kudranski's seventh buck with a bow; he has taken three bucks and five does with a rifle. Age 39, he has been a police officer in Plum Boro for 17 years. Prior to and throughout the season he keeps his hunting clothes outside in a box of apples. He wears full camouflage, including face cream, coverup scent, and black golfing gloves. His PSE Lasar Hunter is 55 pounds at his 31-inch draw of Easton 2018 aluminum shafts; each is tipped with a four-blade Razorbak.

Six days later, at the other end of the



**WELL KNOWN** bowhunter Rit Heller and the 168-lb. 8-point he bagged only four miles from his Reading home. Rit once held 3rd place in the state's bow records with another buck taken in the same area.

state in Berks County near Reading, Rit Heller was, by coincidence, waiting out his seventh buck with the bow. He was hunting the same area in which he took a 23-inch 9-point in 1971. At the time, it was the third largest rack ever taken in Pennsylvania by a bow hunter. In 1976, Rit shot a buck that field-dressed at 196 pounds. But this was 1985, and the spike he had passed up began seeming bigger with every passing minute. The season was nearing its end. However, he had seen another nice rack, and he still had hopes on this misty morning. Then a heavy buck followed a doe through the dripping trees—so close to his treestand that he had to wait for a better shot.

The arrow went through both lungs and the buck folded in less than 80 yards. The heavy rack had a  $19\frac{1}{2}$ -inch spread, but scored just under 100 because it lacked uniformity. The deer brought the scale to 168 pounds after it was field-dressed. Rit took this one with

a Jennings Arrowstar set for 58 pounds at his draw, using a camo-aluminum 21-17-inch shaft tipped with a Bear razorhead.

Rit has also scored on such trophies as moose, caribou, bear and elk.

In these two illustrations are more clues. The deer taken were of the same bloodlines as those mountain deer that, for the most part, evade the record book. They have gradually moved out to better areas of food, near human habitation where there is little hunting

pressure. Such deer become adept at avoiding people and make the most of their daylight movements, early and late. They grow heavy and big-racked.

When it is noted that two deer which list high in Pennsylvania's bow records came from tiny Delaware County, not far from Philadelphia, there is further evidence that trophies are not found only in wilderness. The biggest buck I ever missed with the bow presented himself not far from a sign that said, "New York City—20 miles."

## young artists page



Squirrel  
Christine Lehman  
Emigsville, PA  
Central Senior High School  
11th Grade

Wood Duck  
Jim Reeder  
Mapleton Depot, PA  
Southern Huntingdon High School  
9th Grade







FRED CONNORS TAKES A CLOSE look at one of Lewis's favorite deer rifles, a 308 Ruger topped with a 2-7x Redfield Low Profile scope.

# AUTUMN THOUGHTS

By Don Lewis

Photos by Helen Lewis

“OCTOBER may be a month of beauty with all its colors and invigorating days, but it’s a time of indecision for me. I always have a gnawing feeling that I don’t have the right guns for hunting. I have pretty strong feelings about my shotgun, but it’s the blasted deer rifle that drives me up the wall.”

These remarks were made by a middle-age gentleman at a sportsmen’s dinner. His conversation led me to believe he was extremely knowledgeable about hunting guns, but he couldn’t shake a bad case of indecisiveness; it plagued him every season. His comment that the fall roundup was his Achilles’ heel hit me like a ton of bricks. Maybe this is more of a problem than most of us think.

To many, choosing the right squirrel rifle, small game scattergun and big game outfit seems almost elementary.

Elementary or not, it’s not always easy. After considerable thought on this man’s statement, I concluded that I’d had similar insecurities in selecting what was best for me.

What would I do if I had to pick a lifetime outfit for each of the categories mentioned? What had appeared simple at first suddenly became mind boggling. Since I have been a two-barrel shotgunner for 50 years, there wasn’t much of a problem about a smooth-bore, though the thought of settling for just one scattergun gave me mixed emotions. The same held true for a squirrel rifle. But here again, would I opt for a single shot or a repeater? In this instance, the type of 22 rimfire wouldn’t matter so much as getting the most accurate one.

When I came to the deer outfit, which I’d thought would be solved in a second or two, I hit a snag. There’s no



point in going over all the things that passed through my mind, but, just for the heck of it, put yourself through this test and see if you have conclusive answers for each type of hunting gun. It may come as a surprise to learn you might be bothered somewhat by indecisiveness. I'm not a betting man, but it's a fair assumption that most readers will find themselves in somewhat of a predicament.

I mentioned the squirrel rifle even though many of you use shotguns. My only advice in choosing a squirrel rifle is to stick with the common 22 rimfire cartridge in an accurate outfit topped with a 4x or 6x scope.

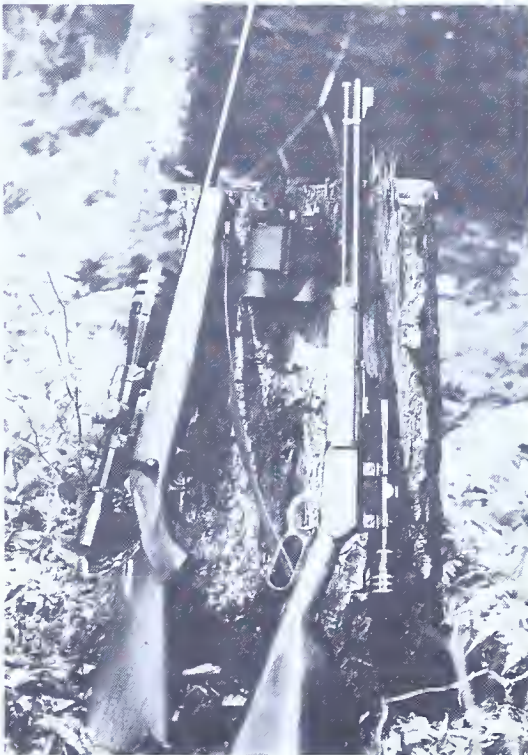
How do you find an accurate rimfire? You can't unless you fire it from a 50-yard benchrest. The name, type of action and cost won't guarantee a thing; it's how it performs from a solid table and two sandbags, and learning that is not a one-evening affair. Give every rimfire outfit a fair test and use as many brands of ammo as possible. Most rimfires are eccentric and won't handle all brands with the same degree of accuracy.

### Right Ammo

I'm not giving bad advice when I say the modern 22 caliber rimfire is accurate, and that's especially true in the bolt action configuration. The job is finding the right ammo.

In the shotgun realm, most hunters are more concerned with gauge and choke than the fit of their scattergun. I don't want to come down hard on that, but in all honesty it's the wrong approach. I'm well aware that the beauty of a shotgun rests basically in its stock, and that few hunters would ever dream of mutilating a superb piece of wood.

Over the years, I have stressed the fact that most shotgun stocks are too



**MILT ANDERSON** uses IC-bored Marlin pump for winter rabbit hunting, top; left, two fine squirrel outfits, the bolt action Kimber M82 and Winchester's lever action M9422.



long, and I believe this is true. However, it can work the other way, too. I recall a situation where the hunter kept getting whacked on the nose with his thumb. He knew the stock was too short and that his thumb was crossing the grip right under his nose. But as his stock was full-grained and very attractive, he refused to have it lengthened. Foolishly, he continued to hunt with this outfit, even though his shooting suffered along with his nose. The problem could have been solved quickly with an appropriate half-inch filler.

Man is adaptable, but there is a limit. He can adjust to some extent on stock length, but not as much with the shotgun as the rifle. Really, it's better to have a shotgun stock cut exactly to the best length. There is no way one or two stock lengths will fit all hunters. I have used shotguns that didn't fit, and my shooting proved it.

When a stock is too long, the balance is too far forward. A fast-handling shotgun has its weight centered between the hands. There's no getting around the fact the proper balance is what a fast-pointing shotgun is all about.

### Switch from Full

For many years, the hunter had to settle for just one choke in a shotgun carrying only one barrel. In the gaslight era, the full choke was the favorite, but as hunters began to understand the advantages of a wider pattern, many switched to more open chokes.

It's my contention that few rabbit, quail or grouse hunters need full chokes. Choke is one of the most misunderstood aspects of field shooting. Full choke may add a few yards of range for the waterfowler and dove hunter, but it often works against the small game hunter. Hunters, in general, will have more field success with improved cylinder and modified borings in short barrel lengths.

The amount of choke needed depends entirely on the average distance you fire in the field. It strikes me as strange that many hunters think in terms of the longest range instead of the

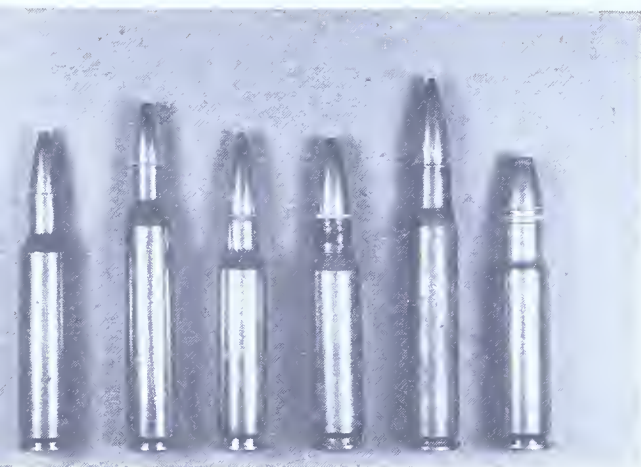


**AUTOLOADING M1100 Remington and slide action Ultralight 37 Ithaca, both in 20 gauge and both bored IC, do the job for Anderson and Lewis.**

average distance. If nine out of ten shots are fired under 30 yards, why choke up for 40 and above? Yet when you buy a full choke outfit, that is exactly what you are doing. You may drop an occasional rooster at 45 yards, and once in awhile you might tumble a rabbit at a full 50. That's impressive. But what about the shots missed at 20 to 30 yards because the pattern was too small? I have no hard statistics to prove this, but as I look back over a half-century of small game hunting, I'm sure I killed 85 percent of my rabbits, pheasants and grouse under 35 yards. The percentage could be higher!

Chokes and patterns aren't a black and white matter that can be described easily. First and foremost, no two barrels are precisely alike even though both carry the same choke stamping. It really takes a master barrel maker to get two shotgun barrels choked so that they both put the same percentage of shot in a 30-inch circle at 40 yards. Fortunately, there is no real need for this in the first place. What is important is knowing how your shotgun patterns at the distance you expect to shoot, using the same brand and type of shells you hunt with.

Don't believe you'll always get pat-



**A HALF-DOZEN** fine deer loads, from left: 6mm Remington, 25-06, 7mm-08, 308 Winchester, 30-06 and 356 Winchester. Any of these would handle most hunters' needs, but the middle two would probably be the best compromises, everything considered.

terns that match the choke stamping on the barrel. Different loads often pattern differently. That's why I suggest testing a few of the shells you'll be using for hunting.

This is not a shotgun article, and I don't have space to get involved in all the technicalities of chokes and patterns. My advice is to not go overboard on choke. No matter what you choose, fire a few shots from a solid rest into a full-spread newspaper at 30-35 yards. Note where the pattern forms in relation to where you were aiming, and pay special attention to the density of the pattern's center.

Selecting the right big game rifle can be a real headache producer. The vast array of calibers, cartridges, and types of big game outfits is confusing to say the least. Where do we begin, and what guidelines do we use? Those questions have been asked by Pennsylvania deer and bear hunters for almost a century. Isn't it upsetting that the answer has never been found. I'll go a step further and say it never will be.

The big game rifle is a very complex thing. As deer and bear hunters rarely agree on any aspect of what constitutes a big game outfit, the arguments continue. I won't settle anything here, but surely some of these suggestions should

shed enough light to help make a reasonable decision.

I sincerely believe the average big game hunter is too concerned with power. Basically, big game in Pennsylvania means the white-tailed deer. This isn't downgrading bear hunting. But Pennsylvanians took over a quarter-million deer last year compared to a thousand or so bruins, which should lend a little credence to my statement. Deer aren't large, heavy-boned animals like moose or big bears. The average whitetail won't hit a 150 pounds live weight. There are few heavy bones in the entire skeletal makeup. Why the crying need for sheer power and super large cartridges? It really doesn't add up.

I have nothing against magnums, but I have found from experience that a good share of magnum owners don't like the roar and recoil of the magnum shell. That's nothing to be ashamed of. No one likes to be battered. The white-tail hunter can settle with assurance for something a lot more pleasant to shoot.

### **Most Don't Need Magnums**

A 300 Magnum pushing a 180-grain slug out of the muzzle at 3000 fps or faster doesn't fit my philosophy of deer hunting. I'm quick to admit it would be a perfect choice for a deer hunter whose slug must zip over a 400-yard wide valley. And the hunter who wants just one rifle for all types of big game will benefit from the magnum cartridge. But most Pennsylvania big game hunters by far do not fall into that category; deer is their prime target. So why not use a cartridge that is more than adequate and a lot easier on the body?

I've mentioned several times that I'd be happy with the discontinued 284 Winchester cartridge for the rest of my deer hunting. It's far from a mag-type load, yet it has all the speed and punch needed in deer country. Other cartridges also qualify. Veteran deer hunter Bill Nichols, of De Young, is a great admirer of the old 257 Roberts, and renowned gunwriter Jack O'Connor liter-





ally immortalized the 270 Winchester, using it on many species of big game.

Three deer hunters don't make a quorum and shouldn't answer for the masses. That's not my point. I have always opposed the magnum shells for deer, and two highly respected deer hunters hunted for decades with non-magnum shells. This is worth thinking about, especially if you happen to be considering a new rifle for the coming season.

Since I will be using a Model 700 Remington Mountain Rifle in the 280 cartridge this coming season, let's take a quick look at this cartridge.

In 1957, Remington introduced the 280. It came out in the Model 740 autoloader. Sometime later, the bolt action and the pump outfit were chambered for the new entry.

The 280 is based on the 30-06 case and is a little longer than Winchester's 270. This prevents accidental chambering. The new cartridge got off to a rough start, possibly due to the fact that it really didn't offer much more than the 270, which had been around for

three decades. The general shooting public didn't realize that the 280 has a wider range of bullets, giving it a greater reloading potential.

Remington renamed the 280 the 7mm Express. I understand they used an improved slow-burning powder to increase velocities about 100 fps.

For 1986, Remington is back with the 280, incorporating a new 140-grain bullet which most ballistic experts feel is the optimum weight for the 284 caliber.

This load delivers a flatter trajectory out to 500 yards than the 130-grain 270. In addition, there is the advantage of the heavier bullet, which Remington says gives a 12 to 20 percent increase in downrange energy.

Compared to the 150-grain slug in the old reliable 30-06, the 140-grain 280 provides superior trajectory throughout with a substantial advantage of around 25 percent greater downrange energy.

I won't go into detailed ballistics now, but muzzle velocity with the 140-grain 280 bullet is around 3000 fps, which compares nicely with the 130-grain Winchester 270's velocity of 3060 fps.

I could go on, but it should be clear there are reasonable answers for the nagging fall roundup question. But we all know nobody is going to listen. Bill Nichols still thinks the 257 Roberts is the greatest deer getter. I'm not one to argue, but let me. . . .

## Pennsylvania-Inspired Slide Action Carbine

Remington Arms Co. has announced a limited production run of the Model 7600 Carbine slide action rifle. To be produced only in 1986, this carbine will have an 18½-inch barrel and be chambered for only the 30-06 cartridge. This rifle came about as a result of the 1985 GAME NEWS questionnaire, which indicated that the Model 760 Remington slide action was the most popular big game rifle in Pennsylvania. The Model 7600 is an improved version of the Model 760.

Many woods hunters like the speed and ease of firing of slide action rifles. The functioning of the bolt of the M7600 and similar Remingtons gives a stronger lockup than early pump actions and permits chambering for powerful cartridges such as the 30-06. A removable clip magazine also makes loading and unloading easy, and the free-floating barrel gives excellent accuracy.

The Model 7600 Carbine is not listed in the current Remington catalog. Interested hunters should contact their local dealers. The Remington order number is #4660.

# *In the wind*

bob mitchell



Thanks to a 9-0 Supreme Court ruling, Indians who kill bald eagles on reservations are no longer exempt from federal prosecution. The decision partly overturns a 1985 appeals court ruling in which it was decided Indians could kill endangered species on their lands. The actions stem from an incident in 1984 when several Indians were arrested for shooting more than 200 bald eagles in South Dakota and Nebraska and then selling artifacts made from them. The Supreme Court ruling was based on the Bald Eagle Protection Act, however, which doesn't apply to other endangered species.

A New York man was given a four-month jail sentence and fined \$10,000 after being arrested for at least the third time for illegally hauling hazardous wastes. This is the longest term handed down in the state for such a crime. This latest incident resulted from information supplied by the Pennsylvania Department of Environmental Resources. In addition, four corporations were assessed fines or civil penalties of \$1000 each for dealing with the unlawful hauler.

This past spring, at least three ivory-billed woodpeckers were found in a heavily forested region of eastern Cuba. This was the first confirmed sighting of this species since 1971, and lays to rest the fears the species had become extinct. The ivory-billed woodpecker used to be found throughout southern Florida and into Texas and Oklahoma but, despite unconfirmed sightings as recently as 1982, the last verified report in Florida was made in 1969. The Cuban government has halted all timber cutting in the vicinity of where the birds are thriving, and closed the area to all but scientists.

Ducks Unlimited, the renowned 600,000-member conservation organization, recently gave \$1.4 million to the Migratory Bird Conservation Fund. The donation is the largest single case contribution ever made to the fund and will be used to acquire wildlife habitat for the National Wildlife Refuge system.

According to the National Wildlife Federation, there are 14 billboards for every 10 miles of roads in the country. The Federation and several other national conservation groups are trying to have federal legislation introduced to strengthen the 1965 Highway Beautification Act. Since that time 300,000 billboards have been erected, 13,522 in 1983 alone. The informal consortium hopes to stop construction of billboards along federal highways, prohibit the cutting of trees on public lands to make signs more visible, and return control of billboard regulations to local zoning authorities.

**The Florida Game and Fresh Water Fish Commission has begun a captive breeding program to reestablish cougars in the state. Only a few dozen are thought to exist there now. The initial phase of the study will test the feasibility of using western cougars for captive breeding and release studies, and for cross-breeding with the eastern subspecies native to Florida.**

After 20 years of discussions, the United States and Canada have developed a cooperative management plan to restore North American waterfowl populations. As reported by the Wildlife Management Institute, the multi-faceted plan is designed to restore waterfowl numbers, particularly those for mallards, pintails and black ducks, to levels found in the 1970s—62 million birds in the spring and 100 million by fall. In addition to adjusting hunting seasons and bag limits, the primary emphasis will be on developing and protecting over 3.6 million acres of waterfowl habitat in Canada, and nearly 2 million in the U.S. Accomplishing these objectives will cost over \$1.5 billion and, because most of the harvested waterfowl produced in Canada is taken in the U.S., 80 percent of the funding is to come from this country. Most of this money will have to come from private sources to make this major undertaking a success.



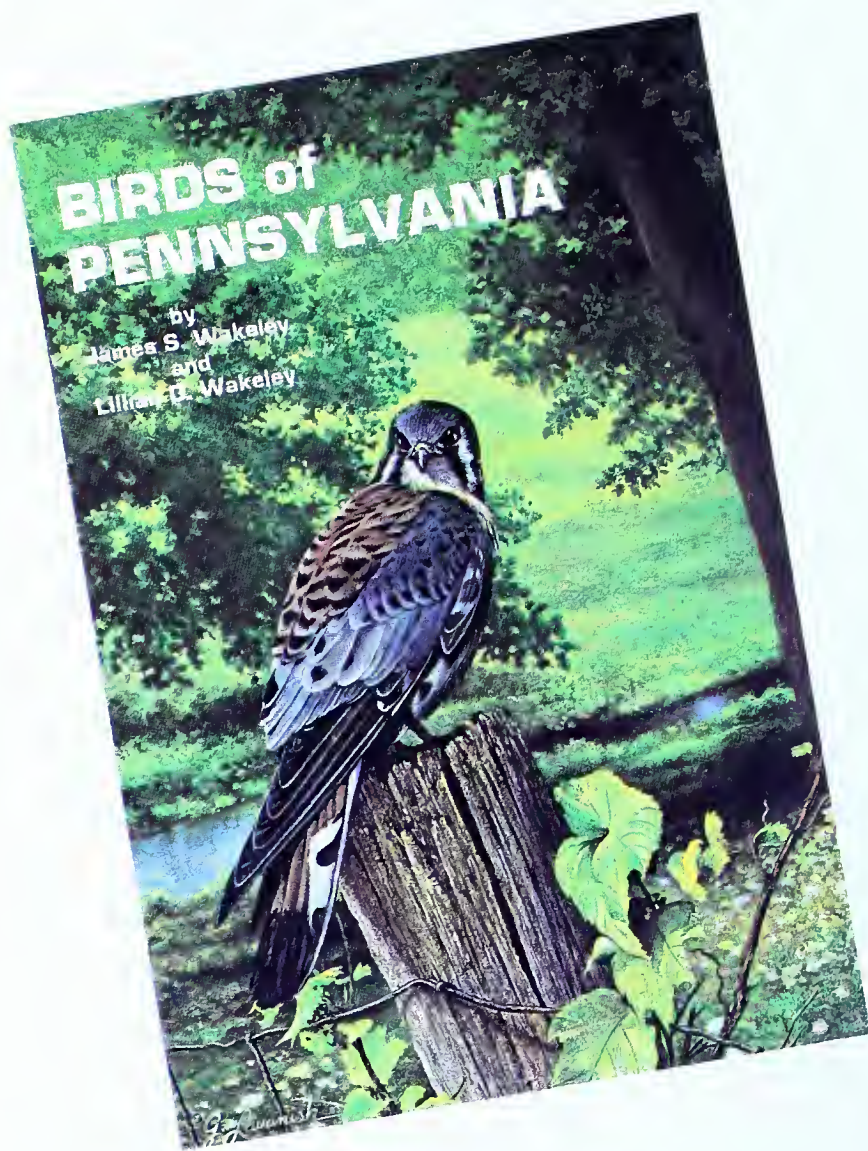


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Pennsylvania's 1986 waterfowl management stamp, created by Alabama artist Robert C. Knutson, is the fourth "duck" stamp offered by the Game Commission. Funds derived from stamp sales are used for wetland acquisition, habitat development, and waterfowl-related education. Stamps cost \$5.50 each, \$22 for a plate block of four, and \$55 for a full sheet of ten, delivered. 1984 and 1985 stamps are still available, at these same prices. For additional savings, the cost for five or more ten-stamp sheets, in any combination of years, is \$40 per sheet. The 1984 stamps will be available through December 31, 1986, at which time all remaining supplies will be destroyed.

Stamps are available at the Game Commission's Harrisburg office, regional offices, the Pymatuning and Middle Creek Wildlife Management areas, and at participating hunting license issuing agents and stamp dealers. Signed and numbered fine art prints of this design are available from art dealers and galleries nationwide.



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# Firearm Owners Protection Act

**I**N MAY, President Reagan signed into law the Firearm Owners Protection Act, popularly referred to as the McClure-Volkmer Bill, after its two primary sponsors in the Congress.

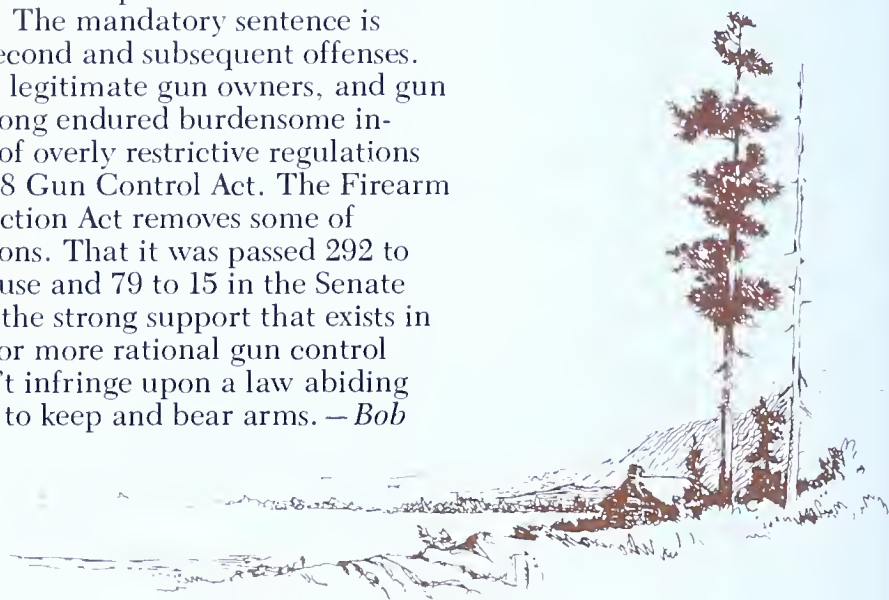
The new act, which goes into effect this month, eliminates some of the burdens of the 1968 Gun Control Act. It helps protect the rights of those who want to own and use firearms for legitimate purposes. It does away with much of the paperwork with which gun dealers have had to contend and, equally important, imposes strict penalties on criminals convicted of using firearms while committing violent crimes.

Under the Firearm Owners Protection Act, law-abiding citizens are allowed to purchase rifles and shotguns from any licensed dealer in the country, providing both parties adhere to existing state regulations. Individuals are free to transport firearms across state borders so long as they are unloaded and not quickly accessible. Collectors who make only occasional sales are no longer required to have a federal dealer's license. Furthermore, to protect those who make honest mistakes, prosecutors must prove that incidental violations of the gun law by dealers or purchasers were committed with criminal intent. The law also guarantees return of confiscated firearms after acquittal or dismissal of firearm-related criminal charges.

Dealers now have less restrictions with which to contend; they no longer have to keep records of ammunition sales, and federal officers are permitted to make only one unannounced inspection of sales records each year, except in instances where criminal cases are involved.

The Firearm Owners Protection Act is also designed to discourage use of firearms by criminals. A mandatory five-year sentence will be added to whatever other sentence is imposed for a violent federal felony. This now includes drug trafficking if the defendant used or possessed a firearm during the crime. The mandatory sentence is doubled for second and subsequent offenses.

Sportsmen, legitimate gun owners, and gun dealers have long endured burdensome inconveniences of overly restrictive regulations under the 1968 Gun Control Act. The Firearm Owners Protection Act removes some of those regulations. That it was passed 292 to 130 in the House and 79 to 15 in the Senate demonstrates the strong support that exists in this country for more rational gun control laws that don't infringe upon a law abiding citizen's right to keep and bear arms. — *Bob Mitchell*





# ONLY MY GUNBARRELS

By Michael L. Morgart

**D**AWN CAME painfully to the swamp that morning. Fog swirled and drifted across the shallow waters, weaving its way between tussocks of brown foxtails and then disappearing into the cold morning air. I shivered hard in my canvas jacket as I sat, half awake, looking first at the gloomy acres of wetland surrounding us and then at my grandfather who sat motionless beside me.

My feet and legs were soaked from our trek to the blind. I had followed close behind my grandfather, stumbling and slipping along where he moved with ease. In the dark we'd passed through groves of cattails and waded muddy water that nearly topped my gum boots. Grandpa carried his double-barrel shotgun in one hand and a gunnysack full of decoys over his shoulder. I carried a thermos of hot coffee and a bag of 12-gauge shells.

## Wet and Cold

When we finally reached the blind I was wet and cold. Grandpa meticulously set out his battered string of decoys while I stayed in the blind drinking hot coffee and trying not to doze off. After he returned to the blind we sat quietly, waiting for the dawn.

First light showed clouds the color of Grandpa's gunbarrels. Drifting ominously by, they seemed to bring a cold damp breeze to the swamp. I shivered



"AREN'T YOU COLD?" I asked my grandfather, as the clouds swept the last of the mist from the water. "Only my gunbarrels," he answered. He held the Parker delicately, like a younger man would hold his girl.

harder and tried for a third time to fasten the missing top button of my jacket. Grandpa gazed out over the decoys he'd so carefully placed an hour before.

"Aren't you cold?" I asked, as the clouds swept the last of the mist from the water.

"Only my gunbarrels." He held the Parker delicately, like a younger man would hold his girl's hand. His thumb hung on the right hammer in anticipation. "You're not cold, are you?" He continued to watch the swamp.

"No, I'm fine," I answered. Actually, I was beginning to feel a little better now that I could see where we were.

The swamp spread out on both sides of us. It was only a few dozen yards across, but three or four times that far toward the headwaters to our right and several hundred yards toward the lake on our left. The stream that feeds it follows no particular channel. Rather, it spreads out through many small channels separated by sawgrass and cattails as it gradually descends to the lake.

Our blind sat on a small grassy ground about a third of the way out



**GRANDPA** just sat staring at the birds as they passed the blind and made for the headwaters. "Two mallard drakes and a hen," he whispered. "Why didn't you shoot?" I asked as they flew by unchallenged.

from the edge. It was a simple box shape with a door on the back. Dead grass and brush camouflaged its three-foot walls. A bench made from a board and two crates, and a small shelf where Grandpa placed his shotgun shells were the only furnishings.

"It sure seemed like we waded farther out here than that," I said, studying the tree line behind us.

"It was. We came from over there." Grandpa nodded across the swamp and back toward the headwaters.

"Why?" I asked as I stared across the wetlands and remembered my seemingly needless walk. "Isn't there any place for a blind over there?"

"You'll see," he said, and again we waited. Clouds continued to roll in, getting blacker all the time. I watched them, hoping they wouldn't bring rain. Suddenly, three dark shapes appeared from the direction of the lake.

"Look!" I jumped up and pointed excitedly. Three crows immediately veered from our blind.

"You won't do that when the ducks fly in, will you?"

"No. I guess not." My excitement passed quickly and I was cold again.

I began to wonder why anyone would want to sit here in such discomfort, waiting for a duck.

The decoys bobbed slightly as the breeze began to gust, and finally the first drizzle fell across the swamp. I bundled my coat up tight and watched the rain work its way toward me.

"Won't be long now," Grandpa said, and wiped a few droplets from his gun.

The drizzle soon changed to real rain, fueled by the wind off the lake. The more it blew, the harder it rained and the colder I got. Just when I thought I couldn't stand it any longer, Grandpa nudged me.

"See 'em?" He nodded toward the lake. He slid two shells into his gun and closed the barrels.

"No," I whispered. I couldn't see anything but swamp and rain, but my heart pounded anyway.

"Almost here," he whispered. "Sit tight now."

Finally I saw them, three ducks flying just above the water near the other side of the swamp. A sudden burst of warmth spread through me as they neared.

### Just Watched

Grandpa just watched the birds as they passed the blind and made for the headwaters. "Mallards," he whispered. "Two drakes and a hen."

"Why didn't you shoot?" I asked in disbelief as the ducks flew by unchallenged. Again it seemed I had been suffering through this morning for nothing.

"Too far," said Grandpa. "Sit tight. They'll be back."

The birds reached the headwaters above the swamp and turned back toward the lake. This time Grandpa cocked both hammers on the old double and crouched lower in the blind. As the ducks sped to within thirty feet of the blind, he stood up, swung and fired twice. One drake crumpled and landed in a heap in the grass, the other drake somersaulted into the mud.



"Go get 'em, boy!"

I jumped out of the blind and splashed across the swamp. The rain fell harder and wind whistled through the dead grass as I grabbed the ducks and headed back to the blind. But somehow I didn't notice the cold anymore. At that moment I was wetter than I'd been all morning, but I was too excited to care.

"How'd you like that double?" Grandpa asked as I ducked into the blind.

I didn't have time to answer. Just then five more mallards blazed past and began to circle back. Grandpa dropped another drake and a hen, sending me back into the swamp.

It rained and rained, but the ducks kept coming. And almost to a bird they passed us, first at a distance and then circling back to the decoys just as Grandpa knew they would. With him shooting and me retrieving, we filled his limit in almost no time. Then we bagged the decoys, strung up the ducks, and made our way back across the swamp.

That was a long time ago. I've probably crossed that swamp a couple of hundred times since, but only a few of those occasions were with Grandpa. I treasure those memories. Most of the time I've waded those cattails by myself, or with one dog or another. Even so, Grandpa still makes it back there



#### Question

Must I carry identification with me while I am hunting?

#### Answer

Yes, while hunting you must be able to produce other means of identification, besides your hunting license, on demand of any Game Protector.

with me in spirit. You see, I've never moved that old blind. And those battered decoys are somewhat worse for wear, but they all still float. And that old Parker even makes a double once in a while. Sometimes when it's cold and wet in the blind before dawn, and the wind is sure to blow rain my way and I'm considering if it's really worth it, I can hear him ask me, "You're not cold are you?"

"Only my gunbarrels," I answer, and begin to feel a little better.

**THE SOIL CONSERVATION SERVICE** has learned that the openings to abandoned mine shafts, especially in the anthracite region, can present a hazard to hunters and hikers. Here, SCS Engineer Sam Young examines brush-hidden shaft opening. These usually widen as they deepen, so would be impossible to climb out of without help. Take care!





TREICHLER was awed. Every breath sounded like a steam engine, and, with each movement, the wounded bear seemed to increase in size. . . .





# Three Bears Before Noon

By P J Bell

PENNSYLVANIA bear hunters know the odds. For many, just sighting one of these powerful creatures constitutes a successful season. Actually killing one is a tale for telling. But Camp Bine Dahl's hunt during the 1984 two-day bruin season is a feat worth hearing about. An 18-man hunting party bagged three bears by noon of the first day. And every bear taken was a good-size male. "That's not luck," says Irvin Behm, "that's hunting!" Believe it.

Sunday evening at bear camp is no different than any other preseason night. Dusk brings a sense of comfort and wellbeing. Men shuffle from table to fire, each guided by a cup of coffee and the telling of a tale. Special buddies share old jokes, and the whole gang trades anticipation like school-boys swapping baseball cards. It's all ritual, preparation for the hunt. It's knowledge that, although warm and dry tonight, you're sure to be cold—probably wet—tomorrow.

"Decided on a stand yet?" Teeny asked.

Bob Kercher watched Lamar "Teeny" Treichler nudge a dropped log into a better position for burning. The added heat felt good. "Radio's forecasting sleet and freezing rain," Kercher said. Several hunters in the party had arrived early to scout new territory. They'd found some sign, but not enough to suggest switching from the old haunts. "I'll hunt Balsam Swamp, as always. But I'm gonna change sides, hunt the opposite rim."

Treichler nodded. "We've had good luck in the swamps. My '69 blackie went down with two shots. Fifteen years ago this season. I still carry the same old 35 Remington."

"For luck?"

"Naw. Because it's trusty."

"That's what counts," Kercher said. "No amount of luck is gonna squeeze the trigger for you."

"A hard hunt's what brings results," said Earl Leiby. "Camp average is two bear in three years. Knowing the territory and how to drive it's why. Some of us have been hunting here since we were kids. Heck, Teeny's *grandfather* hunted this swamp."

Treichler grinned. "Taught me all I know, too."

Balsam Swamp is a hunk of State Forest land about fifteen minute's drive from the Witaker Trail, Pike County, camp. Dense laurel and huckleberry make good bear cover, but they're tough on a hunter. In some places the brush is so thick it takes a man ten minutes to move five yards, and finding a spot to stand upright is a battle won. Kercher laid out another pair of wool socks for morning and went to bed. If the forecast held, the 18-man party would be up to its knees in wet.

## Beat the Dawn

Morning comes fast when you beat the dawn, but 4 a.m. isn't so bad when the reason's black bear. Camp custom requires a numbers draw to determine who stands the first drive. The four captains—Feryl Treichler, Tecny Treichler, Irvin Behm, and Bob Sunday—pull from a hat. Teams one and three always make the first drive. On the next push, they'll stand. Positions reverse with each drive so that everyone's treated fairly.

"What say we meet at the swamp's west end between 10 and 10:30," suggested Feryl Treichler, cabin co-owner and Teeny's brother. "That'll give us a few hours to sit the edges before starting the drive. Weather's good so far.



SHOTS SEEMED TO BE sounding in all directions. Leiby's immediate concern was finding a break in the undergrowth. A thin spot showed itself and he moved toward it.

Might as well take advantage."

Heads bobbed agreement and the consensus was to move out. By 5:45 a.m. most of the party was on stand. Gut feeling, pre-season scouting, or ingrained habit determined each hunter's position.

### Slow Penetrating

Light was slow in penetrating the thick cover. Dawn might have brought a coral glow to the folded eastern ridges, but those who waited in Balsam Swamp didn't see it. For them, dawn was an imperceptible creep toward vision. Suddenly and quietly the border was passed. In the space of a breath, darkness gathered light. Larry Seaman noticed a gray squirrel perched, belly flat, on a bare branch. Tom Reinert raised a hand in silent greeting, and Bob Kercher moved closer to the swamp to avoid several fluorescent latecomers.

Teeny Treichler took his spot on the edge of the swamp. He'd heard several hunters pass behind him and around to his right. If he was lucky, their move-

ment might send something his way. He held his old Gamemaster lightly and waited. Thirty-seven years of hunting had taught him patience. When the first shot cracked, Teeny was ready. He turned slightly to the right and half-raised his Remington. Two more shots. He caught a glimpse of the other hunter through thick laurel and the fringe of a large hemlock. Focusing ahead on a small opening, Treichler waited. Suddenly the bear appeared, running, at about 35 yards. Teeny got one shot off, then the bear was gone.

Several seconds passed. Then he heard a rustle in the underbrush. Treichler edged around and looked hard into the laurel. Shuffle. Snap! Movement stopped. Then fluorescent orange flashed across a narrow break in the foliage, and Treichler relaxed.

"Did you connect?" Irvin Behm asked. Treichler said no. "You got bear fever," Behm said. "How big?"

"Three-fifty to four hundred."

As Treichler and Behm started a quick search of the area, just in case the bear had been downed, Bob Kercher



headed for the meeting spot. He'd heard the shots but had seen no bear. He was curious, though. One of the shots could have come from a buddy's gun. At least four camp members regularly hunted the area where the shot had sounded. Kercher ducked, pushed back a huckleberry bough, and stepped sideways.

"A man could lose his shirt-tails being so noisy, Bob."

Kercher grunted and bulled his way into the small clearing. "Now why's that?"

Dale Kramer and Randy Moyer laughed. "'Cause there's bear in this here swamp," said Kramer. "Who fired, do you know?"

"Could have been Treichler," Kercher said. "He's had two near misses in that general area."

Single file, the three men ducked into the next thicket and continued toward the west-end clearing.

". . . branches are nasty," Irvin Behm was saying.

"Yeah," said Tim Disher. "Slapped me a good one right under the eye." The half-dozen guys already assembled looked around as the three-man column emerged from the brush.

"Well?" said Kercher.

"I only caught a glimpse," Treichler said. "The critter was skirting the swamp edge and moving pretty fast. Couldn't see him long. But it looked like a big one. We've done a search and it was a no hit. Maybe he'll lie low for a while. We might be able to flush him on the drive."

By 10:30 the gathering was complete. The drive would push southeast from the swamp's west end. Realizing it was going to be tough to keep a steady pace, Kercher handed his rifle to one of the men on stand and headed down the swamp's left edge. A team was to flank the swamp on either side. Then two men from each team would string a line in, with one from each side meeting in the middle. Kercher left the flank and entered the swamp, moving carefully and looking for sign. He found several large bear tracks which

looked as if they'd been made that morning. Kercher kept moving. After 45 minutes, he met his counterpart. They paused to let the woods grow quiet. As the drive started, Kercher looked at his watch. It was 11:30.

Because the anticipated bad weather hadn't materialized, the swamp's water level was lower than normal. The bottom was still muddy, however, and Kercher couldn't be certain whether a boot would land solid or be sucked deep. The flankers hollered and whistled, guiding those who crawled through the underbrush. Kercher paused, looked around and started out again. A minute passed. Three. Then five. "Fresh tracks!" The drivers tightened the line, hoping nothing could sneak back through. Several deer scattered. Nothing else moved. Kercher realized that in about 50 yards he'd be out of the drive zone.

Then a rifle shot cracked, off to his right, and suddenly it sounded as though war had broken out. Kercher drew his 357 Ruger from its shoulder holster. With all the commotion, anything might come smashing through the brush.

### On One Knee

Earl Leiby hunched down on one knee. Shots seemed to be sounding in all directions, but his immediate concern was finding a break in the undergrowth. Any direction would suit him, so long as he could maneuver without getting hung up. A thin spot showed itself and he moved toward it. He was ready to crawl through, when his hat caught on some briars. He looked up to pull it free and realized he was facing a bear. Each stared at the other through a 25-yard tunnel of green.

Leiby raised his 30-06 and fired. The animal dropped from view. "Bear coming!" he yelled, then smashed his way through the brush.

Momentum carried him through to the clearing, where he stopped out-right, rifle ready, eyes searching. The animal lay in a shallow dip just beyond. Leiby watched for movement.

None came.

"Bear down," he hollered, and approached the animal cautiously. When 17-year-old Kevin Leiby entered the clearing, he found his father, rifle across the knees, leaning over the bear.

"One shot," said Leiby. "Right between the eyes."

Tecny Treichler was on stand when the drive started. He was positioned between Dale Kramer and Larry Seaman, with close to 40 yards separating him from each of the others. When the gunfire erupted, Treichler counted twelve shots and felt certain the racket would move any animal. "Yo." He raised a fist and waved Kramer closer. Treichler sidled to his left, closing the gap with Larry Seaman in case a bear

should break out of the drive. Seaman fired suddenly.

"Coming at you," yelled Kramer.

Treichler found himself looking right at the 400-pound bear. The animal stopped motionless and stared. Treichler aimed for the right shoulder. The bear spun round into a tree. He started to growl and stood up on his hind legs, eight feet of wounded bear towering tall.

Irvin Behm was on stand at his favorite rock, not more than 100 yards from the site of his 1975 kill. From this vantage he could look across and into the swamp. He was carrying his 35 Remington, the gun he'd already used to stop two Pennsylvania black bears. Behm had heard shots earlier in the morning. That pleased him. During recent years few bears had been taken in the area. He took a long breath and realized he felt darn good. Organization, patience, and luck yielded bear, he thought. They were ornery critters. Stayed in the swamp till the last minute. Behm knew enough to wait until the drive was well over before going on.

Movement a short distance ahead caught his attention. Laurel swayed and a blackie moved out. He was breaking through the drive. The bear was 25 yards into the swamp and there was no clearing in sight. Now or never, Behm realized. Up came the gun. One shot—no time for more, even with the slide action 141. The bear vanished into the swamp.

Treichler was awed. Every breath sounded like a steam engine, and, with each movement, the wounded bear seemed to increase size. Each toss of the massive head added height, and every movement of the huge front paws seemed to add weight. The animal stepped forward. Treichler could see the soft rise of the toe pads, the glint of claws. Suddenly the animal lashed the air with a blow that could have crushed a steer's skull. The movement threw the animal off balance; it staggered, heaved upright, then toppled.

## ***GAMEcooking Tips***

### **Barbecued Pheasant**

- 2 pheasants, cleaned and cut into pieces
- 1 16 oz. bottle of hot ketchup
- 1 8 oz. can crushed pineapple, undrained

Blend last two ingredients in a blender or food processor. Skin pheasant. Pour sauce over the fowl, and marinate in refrigerator three hours or more. Place pieces in baking dish and pour sauce over. Cover and bake at 300° for 1½ hours or until birds test done.

This preparation makes the basically dry pheasant moist and tasty. A great way to have supper ready fast.

Pheasant can also be barbecued in a microwave oven. Cover with plastic wrap and cook at low setting three minutes at a time, turning and resetting for a total of nine minutes. Check for doneness, and allow pheasant to rest several minutes before serving. Easy. Serves four.

—FROM WILD GAME COOKERY  
BY CAROL VANCE WARY



Treichler moved in fast. He wanted a second shot to put the animal out for good. As the bear struggled to rise, he hesitated, wanting to place his shot precisely.

"Need a gun? Hey, Treichler, do ya need a gun!"

Treichler's shot, followed by silence, was his answer to Dale Kramer.

Bob Kercher had wondered who was doing all the shooting. He'd heard the shout about fresh tracks, and then pandemonium broke loose. Another shot sounded to his left, close.

"Bear hit!" came the cry. "Hold and watch." Kercher's gaze swept a wall of laurel, noting the cracked, leathery surface of the November leaves, so different from the high-gloss of summer. He heard the chatter of a squirrel overhead and the sudden ground-level rustle that indicates some small mammal's passage. No thick growl hung in the late morning air.

### "Leiby's Bear"

"Leiby's bear," came the call. Kercher was pleased, knowing Earl's son Kevin would share in the festivity as well as the hard labor.

Kercher moved forward again. The morning was already a success, and still the swamp held promise.

"Bear down!" came from the driver to Kercher's right. Spotting the animal, Kercher aimed the Ruger, taking swift pleasure in the gun's fit and balance. "Cover me," he yelled. "Shoot if it moves."

"I hear you," came the reply from the fluorescent shape down line.

Kercher picked up a dead branch and approached the downed bear. "No movement." Having prodded the creature thoroughly, he was sure it wasn't going anywhere without great effort and external force. "We're bringing out number two."

Kercher and several nearby drivers went to work. They carried, shoved, and finally dragged the bear through the swamp growth, gasping and sweating.



**LAUREL SWAYED and a blackie moved out. He was breaking through the drive, into the swamp. There was no clearing in sight. Now or never, Behm realized.**

"Heave."

"Yeah. Gee this is a job."

"It's worth it."

"Yeah, heave."

As they neared the southeast edge of the swamp, an excited group of hunters started forward to meet them.

"Who belongs to this bear?" hollered Kercher.

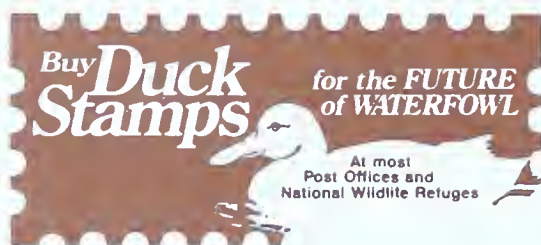
"Behm."

"Get him in here. He's got to help drag."

Kercher stepped back so a fresh man could replace him. "Not bad," he said. "Two bear in one drive."

"Three," said Larry Seaman. "All males."

Kercher stared and Seaman started to laugh. "Teeny got one even bigger



than this. So dig in, buddy, it's gonna be a real haul."

Afraid that continued dragging through the swamp muck would ruin the hides, the hunters decided to carry all three bears. Easier said than done, was the general opinion, but all agreed it was the only way.

"There's an old logging trail about half a mile from here," said Feryl Treichler. "I'll bring in my pickup."

The men tied the first bear to a strong pole. After two hours of struggling and frequent rotation of carriers, they had the three bears at the truck.

"We gotta take them to the check station," Teeny said. "Behm, Leiby hop in. We'll get these critters weighed."

Return to camp was triumphant. Treichler's bear weighed 366 pounds field-dressed, with a live weight estimate of 420 pounds. He'd fired two shots and connected both times.

Leiby's trophy, his first bear in 24 years of hunting, weighed 275 pounds field-dressed. "Figured out at 315 pounds live weight," he said. "What do you think?"

"I knew your '06 would be too much for him," said Kevin. The young man touched his father's arm. "What about next year? Will you stay home with Mom?"

"Always promised I would if I got my bear," Leiby pushed back his cap and leaned toward the boy. "But I can't say just now. Second thoughts, you know."

"Come join the party," said Irvin Behm. "I'm celebrating my third bear, anticipating number four."

Behm's single shot had done the trick. His bear's live weight was 144 pounds.

"It was a great day," said Treichler. Nobody disagreed.

## *Books in Brief...*

(Order from publisher, not from Game Commission)

**Gun Digest**, 41st Ed., edited by Ken Warner, DBI Books, 4092 Commercial Ave., Northbrook, IL 60062, 480 pp., \$16.95. An unforgettable part of this edition is a five-page tribute to John Amber, for three decades the demanding, charming, irascible editor of *Gun Digest*, who died in January. Assembled by Warner from the letters and comments of dozens of friends, this article gives an inside look at John Thomas Kirk Patrick Amber, the man who described himself as "John T. Angry—half Irish and half SOB." Maybe that's what it took to dominate the gun publishing field for so long.

There's a lot of topnotch handgun stuff this year, including Wilfrid Ward's "Essence of the Dueller," Jim Thompson's "The Radom—Toughest 9mm Ever," and John Malloy's "Revolvers for the 45 ACP." Long-gun fans who are interested in the ultimate rifle will enjoy Konrad Schreier's "Cal. 50 Super Snipers," Bill Bigelow's "Making Mr. Sharps' Rifles Today," and "Solving the Problem of the Western Rifle," by John Barsness. There's much more good stuff, too, for instance Roger Barlow's offbeat "What's a Gun Without a Ghost?" and the shotgun, handgun, rifle and scope updates by Larry Sterett, J.B. Wood and Hal Swiggett, Layne Simpson and Bob Bell.

**Custom Muzzleloading Rifles**, by Toby Bridges, Stackpole Books, Cameron & Kelker Sts., Harrisburg, PA 17105, 224 pp., softbound, \$20.47, delivered. Whether building a muzzleloader from scratch or a kit, this amply illustrated guide covers the process step by step. Also covered are the important aspects a person should look for when buying a finished product. Lists of custom rifle makers and outlets for commercially available parts and accessories make this a useful reference for novice and dedicated black-powder enthusiasts alike.



# The 1985 Conservation Reserve Program

By Jack M. Payne

**W**ILDLIFE populations, especially upland game birds, have been drastically reduced in recent years by the conversion of vast amounts of wildlife habitat to more intensive uses, such as cropland. Provisions of the 1985 Food and Security Act, especially the Conservation Reserve Program, address this concern in what may well be the most important natural resource legislation in many years.

The principal objective of the Conservation Reserve Program (CRP) is to remove marginal and highly erodible croplands from production and convert them to rangelands or woodlands. It is anticipated that up to 45 million acres will be enrolled in 10-year contracts as a result of this program. In return for entering into such a contract, the landowner will receive not only technical and financial assistance, but will also receive annual land rental fees to offset the loss of production and provide an incentive for the agreement. This program will especially benefit upland wildlife, such as rabbit, quail, turkey and pheasant, because landowners will be allowed to plant perennial grasses, forbs, legumes, shrubs and trees which will provide food and cover for many species.

If you would like to improve wildlife habitat on your land through a CRP agreement, it is important to identify the most important wildlife needs in your area and select approved conservation practices most likely to satisfy these needs.

A summary of the CRP is as follows:

1. It is a long-term voluntary set-aside program (10 years) where 40-45 million acres of highly erodible agricultural lands (that must have been cultivated for at least two years be-

tween 1981-1985) can be planted and maintained in permanent vegetative cover in one or more of five cover types.

2. It appears now that highly erodible lands for the Conservation Reserve Program will be those in land classes VI, VII and VIII, and those in II through V which are eroding in excess of 2T (2T being up to 4-5 tons/acres/year on deep soils and much less on shallow soils).

3. Permanent vegetative cover-types are: trees and shrubs, native grasses and legumes, wildlife habitat (including shrubs, etc.) field windbreaks, and combinations of two or more of the above.

4. Establishment costs of permanent cover can be cost-shared up to 50 percent via the county and/or state Agricultural Stabilization and Conservation Service committee.

5. Each interested farmer with eligible lands will be required to submit a bid stating how many acres are offered at what annual rental price and what type of permanent vegetative cover, or combination thereof, will be established. The State ASC Committee will establish bidding pools and guidelines for consideration.

6. If the bid is accepted, the lands enrolled will be maintained in permanent vegetative cover for the 10-year period; no crop (hay, grazing, trees, seed, etc.) may be harvested from these lands during the contract.

A landowner may sell hunting permits or access leases for recreational use so long as the permanent vegetative cover is maintained. It is expected that maintenance could include noxious weed control, clipping/bush hogging or prescribed burning.

7. This Conservation Reserve Pro-



**THE CRP is a long-term voluntary set-aside program where 40-45 million acres of highly erodible agricultural lands can be maintained in permanent vegetative cover.**

gram will provide tremendous benefits nationwide to wildlife (particularly ground nesting birds) if substantial acreages are established in any of the cover types mentioned. The program is targeted at highly erodible agricultural lands and should reduce soil and water losses, increase tree planting and wildlife habitats, and improve water quality.

8. Although a farmer can bid in all of his eligible acres (highly erodible cropland), total annual payment receivable in any one year is limited to \$50,000.

### **Sodbuster and Swampbuster**

The "sodbuster" and "swampbuster" provisions of the Food and Security Act will also benefit wildlife. The sodbuster provision will make highly erodible cropland ineligible for farm program benefits. This will remove the incentive many farmers see in converting marginal erosive land, much of which provides good wildlife habitat, to cropland.

The purpose of the swampbuster provision is to deny the same farm benefit to farmers who drain, dredge,

fill and/or clear wetlands in order to produce crops. Wildlife managers are well aware of the special needs that wetlands satisfy in the ecology of many wildlife species.

The conservation easement provision of the new law will authorize the United States Department of Agriculture (USDA) to acquire long-term easements in wetland, upland or erodible land for conservation, recreational and wildlife purposes for periods of at least 50 years. Acquisition of this land would be in exchange for partial cancellation of delinquent Farmers Home Administration loans.

It is not the intent of this legislation in any way to regulate or dictate use of private lands. Landowners still have property rights and may choose to farm or not farm. However, the federal government will no longer be a partner to conversion of highly erodible land or wetland to cropland.

The farm law also provides authority for the USDA to withdraw a percentage of a farm's acreage base from production for feed grains, wheat, upland cotton, and rice under set-aside acreage limitation and paid land diversions if surplus stocks are large. Land enrolled under these programs must be devoted to conservation uses. However, under set-aside or acreage limitation programs, land could be devoted to haying, grazing, or production of certain specified crops (if the USDA determines such production is necessary, will not increase price support program costs, and will not affect farm income adversely). Acreage of an eligible commodity diverted from production under set-aside acreage limitations or paid diversion programs may be devoted to wildlife food plots or wildlife habitats that meet standards established by the USDA in consultation with state wildlife agencies. The USDA may pay a share of the cost of such wildlife measures and make an additional payment on such acreage if the producer permits hunting, trapping, fishing, and hiking on the acreage.

The USDA also is authorized to enter



into multi-year set-aside contracts with producers of wheat, feed grains, upland cotton, and rice for a period not to exceed the 1990 crop year. This set-aside acreage must be devoted to vegetative cover capable of maintaining itself through the contract period to provide soil protection, water quality enhancement, wildlife production, and natural beauty. Livestock grazing will be prohibited except where a major disaster is determined by the President or if the USDA finds there is a need for grazing due to the disaster. Cost-sharing incentives will be provided to farm operators for establishing vegetative cover under multi-year contracts.

A summary of some of the conservation practices that can be employed under this new law are as follows;

1. *Establishment of Permanent Grasses and Legumes*—From the wildlife standpoint, the greatest benefits of these practices will likely be the development of nesting and brood-rearing habitat for pheasants, turkeys, rabbits, and a wide variety of nongame species. Undisturbed grass or legume nesting cover is generally in short supply in intensively farmed areas, and any grassy cover may be an improvement over plowed ground. Regarding wildlife's needs, it is important to remember that mixtures of grasses and legumes are generally much better for wildlife.

2. *Tree Planting*—Deer, grouse, woodcock, and a variety of other forest wildlife will benefit from the planting. Young pine stands are in short supply in many parts of Pennsylvania. Evergreens supply needed diversity and important winter protection from snow and wind. Native hardwoods are also important as wildlife habitat.

3. *Permanent Wildlife Habitat*—This provision permits the planting of trees and shrubs as well as herbaceous wildlife cover in proximity to other types of wildlife habitat (edge effect is

Jack Payne was for years an extension wildlife specialist at Pennsylvania State University. He now holds a similar position in Texas.

important). As plant species diversity increases, the number of wildlife species generally increases as well. Songbirds in particular are expected to benefit from increased nesting sites. Multiple rows of trees and shrubs are better for wildlife than single rows (even as travel lanes).

4. *Field Windbreak Establishment*—This provision provides both food and winter cover to wildlife. A diversity of woody species is preferred over single species windbreaks. Use native or other well-adapted nursery stock.

5. *Shallow Water Areas for Wildlife*—Wetlands for waterfowl and other aquatic or semi-aquatic species should include water control structures for management drawdowns. Wetlands for waterfowl should include islands, shallow water (under 4 feet), and an irregular edge, if possible. Watering areas for other wildlife should be constructed so as to maintain a constant water level that is accessible to young wildlife. Morning doves prefer a flat to gently sloping area at the water's edge that is free of vegetation for 30–50 feet in all directions.

These provisions should be used in combination when possible to provide the best habitat for wildlife. For Pennsylvania, some of the wildlife benefits forseen as a result of this legislation include: habitat improvement for deer, turkey, grouse, woodcock and nongame birds and mammals. There will be less destruction of wetland habitat for waterfowl. More farm habitat will be preserved for pheasant and rabbits. There should be increased public access to land devoted to conservation and recreation.

# *November's Feathers . . .*

## *A Mixed Delight*

**By Rick Drury**

**T**HINGS always go fast on the early a.m. shift at United Parcel Service. Packages move down the conveyor belt and are swiftly deposited into the delivery trucks by the loaders. But on this Monday morning I was working with a little extra dispatch. My friend and I had the day planned and we were anxious to get started.

I loaded the last parcel into the Kitting truck and quickly got the okay from my supervisor to go. John was waiting at my house when I arrived.

"Give me five minutes," I hollered as I rushed by him into the house.

"Take your time, the birds will still be there," John replied.

Well, the grouse would be, I thought, but maybe not the other birds he was referring to.

We had spotted them the day before. Doves. But in mid-November such late season birds are notoriously spooky. Many times I'd known large flocks of late season doves to disappear with only the slightest provocation. We were anxious to see if the birds would still be using the harvested grain field we had spotted them in. But grouse came first.

We planned to hit the thick stuff for the first couple of hours. Then, when the sun warmed things up a bit, we'd try our luck in the dove field.

The sun was already doing its job by the time we got to the grouse cover. The temperature was nearing the 60s and my shorthair pup was panting before we started.

"This might be a short grouse hunt," John remarked.

"It's warm," I agreed, "but let's hit it for awhile."

We started off through a thick bottom replete with crabapples and dogwood. Within a hundred yards Troubles went on point on the edge of a berry filled dogwood stand. Too thick, I thought. The pup patiently held point while I tried skirting the edge for a shot. The grouse would have none of it, though, and flushed unseen just a few yards away.

The young dog, losing control, dove into the cover. I laughed and tried to console her.

"Easy, lady, we'll find another one."

### **Muffled Boom**

Just then I heard the muffled boom of my partner's 12-gauge. At first I thought he was shooting at the grouse I'd just flushed, but it had seemed to fly off in a different direction. I tried hollering but we had wandered too far apart. We always did in that bottom.

I hunted out my side of the bottom with no luck. John was waiting for me when I emerged from the cover. Some awfully long tailfeathers stuck out of his game bag.

"Mighty funny grouse they've got in these parts," I said.

"Yeah. A big 'ol ringneck jumped out in front of me down in the swamp."

"We may really end up with a mixed bag today."

"If everything goes right."

"Wanna try up along the strip?" I turned and headed up the hill without waiting for an answer.

"Sure, why not?" John asked, hurrying to catch up.

Sweat collected on my forehead be-







fore we got up the hill. The sun had burned the dew off and it sounded like we were walking on eggshells.

"Think we can get close?" John asked.

"Going to be tough."

We hit the strip edge with the sun to our backs. Troubles was tiring some now and hunting close. A couple of birds flushed wild, 50, maybe 60, yards in front of us.

About the time I'd started thinking of camo gear and doves, Troubles hit a point along the edge near a small grapevine tangle. I approached the dog, whoaing her softly. I was thinking that I'd never put a bird out of this particular spot when the grouse flushed. I was surprised, as usual, but the bird topped out over the strip and offered an open shot. I dropped it with one shot.

"What's up?" John called.

"Dead bird," I replied as Troubles brought the grouse back proudly.

"Good girl," I praised the pup, "good girl."

John came through the cover. "Nice bird. Did she point it?"

**"MIGHTY FUNNY grouse they've got in these parts," I said. "Yeah," John agreed. "A big ol' ringneck jumped out in front of me down in the swamp."**



"Dead to rights."

We paused for a moment to admire the bird and collect our thoughts. Sweat was streaming down both our faces and Troubles was rolling in a nearby spring.

"Sure is September weather."

"Well, then, we'd better think about September game."

"Let's go."

### Dust Up Lane

Dust followed us up the farmer's lane and swallowed us when we stopped. Doves were evident, though not congregated on the dead oak where we had first seen them.

"Looks like they're still around."

"First things first. Let's get permission."

The farmer waved as we approached. We asked if we could hunt doves in his harvested cornfields.

"Just be careful," he said.

"Thanks," we replied in unison.

We dug out our camo gear and a couple of decoys. More birds were in the air now. As we approached, twenty or more flushed from the field. The shorthair, at heel, was becoming frantic.

"Why don't you let her go," John said. "She won't hurt anything."

"Okay, girl, hunt 'em up!"

Troubles tore off like a rocket through the cut cornfield, chasing doves in every direction.

"There goes all her training," I laughed.

"At least she knows what they look like."

"I hope she'll retrieve them."

My old shorthair had always been an indifferent retriever. I was hoping the puppy would do better. I'd not yet had a chance to find out.

"She'll sure get a chance here," remarked John.

I hunkered down near a dead tree at the corner of the field. John took a position about a hundred yards away, beside some small locust trees. Nothing flew in range for a few minutes, a seeming eternity. John's 870 finally



broke the November afternoon, one shot, then another. I turned in time to see a dove fall.

"Nice shot," I yelled.

John's shots had the birds spooked. More were in the air now. A pair came toward me, high. I used my modified barrel, knowing the open choke in the lower barrel wouldn't reach. The lead bird dropped and Troubles made a dash to retrieve it. She brought it back to within about ten feet of me and unceremoniously let it fall.

"All right!" John hollered.

Not exactly a classical retrieve, but she had gotten the job done.

The shorthair began searching the skies for another, and she didn't have long to wait. We had the flock stirred up now.

I turned at John's shot and saw a dove fall from long range. Several flew over my position, low, almost sneaking by before I saw them. Wheeling and shooting twice got no results. Troubles was just about uncontrollable now, prancing and yipping.

Fearing she'd had too much heat, I made her get in the shade under the tree, letting her go only for retrieves.

### **Eight Birds**

During the next half-hour I collected eight birds. The action had slowed some, so I walked over and see how John had done.

"How many," I hollered as I neared his position.

"Eight, maybe nine."

"Just like September," I remarked.

"The birds weren't as spooky as I thought they'd be."

"No, they weren't."

"How'd the dog do?"

"Good, but there's not much left of my voice."

John laughed. Several doves flew by and we watched, the conversation, and the day, being more important now than bagging a couple more.

We turned in response to some shots across the large grain field to the west. My first thoughts were of other dove hunters.

"We've been found out," John remarked.

"Think so?"

Then a large bird sailed into sight.

"Ringneck!" I exclaimed, pointing.

"Mark him down," John said.

"Maybe we can follow him up."

I suggested we stay with the doves a little longer, time enough for the other hunters to clear the field and the bird to settle down.

"Okay," John agreed.



"WHAT'S UP?" John called. "Dead bird," I replied as Troubles brought the grouse back proudly. "Good girl," I praised the pup, "good girl."

We killed two more doves during the next half-hour. I'd kept an eye on the area where the big bird had landed. The ringneck hunters were long gone.

"What do you say, John?" I yelled across the field.

"Let's give it a try."

We stowed our decoys and other dove gear under the dead tree and headed down toward the large bramble field where the ringneck had landed. It was cooling off as evening approached, so I let the dog run on ahead.

"Think he'll still be there?"

"Don't know," John said. "But if he's around the dog will probably wind him."

Troubles had no sooner hit the thick briars than she went on point. Then

## You've got a friend in Pennsylvania

she broke and started working birdy.

"Some scent?"

"Maybe, but she seems afraid of the briars," John teased.

"Let's stomp around awhile. See what happens."

The pup continued to work birdy but she was leery of the needles and wouldn't go into the really thick stuff. I decided that one of us had to, so I gritted my teeth and tramped in.

The rooster flushed up from almost beneath my feet, rising slow at first, fighting the tangles, but then gaining speed. I missed him on the first shot. Too close, I thought, then settled down and dropped it with my second shot.

The dog jumped into the brambles,

hunting hard, sniffing everything.

"Now she wants a piece of the action," John laughed.

I struggled to get out of the cover and get to the bird quickly, but Troubles had found it and was making the retrieve before I could free myself. She had a look of surprise in her eyes.

"Bigger than a dove, huh, girl?"

She dropped the bird at my feet.

"Good retrieve," John said.

"Good day!"

"I'll say."

The sun was turning orange and dropping fast now. A nip in the air reminded us it was still November.

Troubles was dead tired and followed at heel without any orders. The day was over and the fact needed little verbal confirmation.

"A grouse, two ringnecks, and almost two limits of doves."

"First time I've shot doves this late."

The word "late" struck me in a different manner. I glanced at my watch and started walking a little quicker. The day starts early at United Parcel Service.

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# Two Days in Slider Hollow

By Marlin Foster

November 19, 1984

**I**T'S BEEN a long busy summer and fall. I have neglected the journal, worked in the flagstone quarry, mowed grass, cut and split firewood, and cut Christmas trees.

This is the first of a two-day bear season. No snow on the ground, but the weather is cold and crisp. There have been several bear in the area, flattening areas of the cornfields, raiding camps and home garbage cans. There is a good mast crop in this portion of Potter and Tioga counties, so the sighting of bears in the country around Germania has been frequent. We have seen an occasional bear from the house, and one day the school bus stopped at the end of our lane so the kids could see a large bear walking in the road.

Hunted all day; stopped at Slider Inn Camp to get warm at 9 o'clock; stayed 20 minutes. No sooner left than four shots were fired. I hurried back to help, but Jack Miller and his father Harold had missed a bear just behind their camp. The bear was at the top of a Christmas tree field across the hollow at about 250 yards. It was a small to medium size bear.

Several spruce and pine plantations in the Slider Branch are so thick that bear hide and den in them. To find or move one you have to crawl through some places on your hands and knees. For almost two years I have been seeing in this area a bear that weighs at least 300 pounds. Checking carefully, there were plenty of signs that he was in the area, but well hidden.

The day ended with the temperature dropping fast as the sun went down.

## November 20—Early Morning

The alarm woke me at 5:30. Our daughter Lynn is staying with us but hunting with her husband Tom, who is at our old camp with his son Kevin and the other men. We



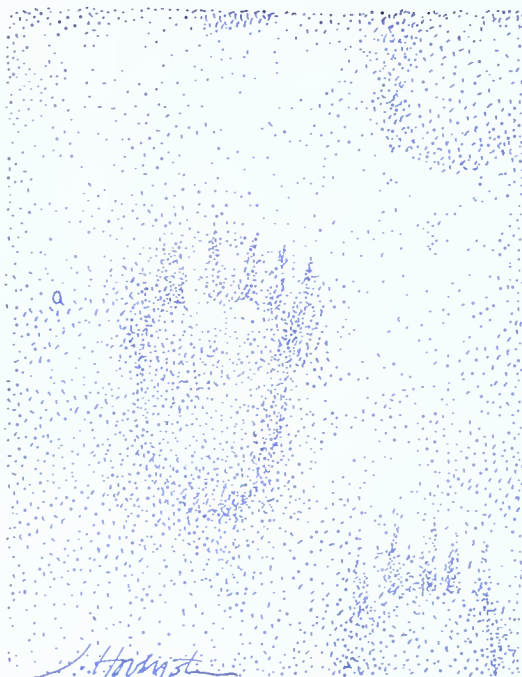
**THERE WAS NO** snow on opening day, but the weather was cold and crisp. There had been several bears in the area, raiding camps and flattening some corn.

ate breakfast and fixed the fire. Checking outside before daylight, I found that a bear had upset and dumped the garbage cans. We didn't awaken because the cans are vinyl, so he made very little noise. There was a big pile of bear droppings only 20 feet from the kitchen door.

Tom arrived for Lynn just as it was getting light. Kevin helped put Lynn's hunting gear in their truck and they were off. They had not got out of our lane when I looked down the hollow from the house and—surprise—there was the bear. He was headed up the opposite hillside, going toward an old apple orchard beyond a maple woods.

My wife Leona kept an eye out for the bear as I finished dressing. Knowing his habits, she knew where to watch. Planning to ambush him eating apples, I headed over the hill, with Leona still watching. When I started up the hill, she whistled. I looked back and she motioned down the hollow. Now I was doing something I did not want to do—hurry.

I saw him. He was a couple of steps from another spruce plantation. I would have to shoot offhand at a good hundred yards, through blackberry briars and other brush, or not at all. The bear took one step and a small opening appeared at his shoulder. It was now or never. I saw the scope's reticle against the bear's black shoulder and the gun barked. The bear lurched and disappeared among the spruces.



**THERE WAS A heavy frost and every step left a print, so finding where he went in the spruces was no problem. I went the whole way around the thick trees.**

I moved quickly so I could see three sides of the plantation. It seemed to take an hour. In reality it was only four or five minutes, and there he was at 250 yards, running slowly in grass so high he was visible only for moments and I could not get a clear shot. Then he was in a larger and thicker plantation. Now the big question: was he hit—he seemed to take so long to cover the 150 yards of grass between the spruce trees—or just not afraid because he knew my scent from living around my house for a year and a half?

I hurried to where I could see the lower end of the spruce grove. Nothing for twenty minutes. Then slight noises, but no bear. A flock of crows flew over and started cawing, dipping down to the treetops and rising to circle and drop again for ten min-

utes before finally leaving. No hawk, owl or fox appeared. Could the bear still be there?

Checking my rifle to make sure I had five cartridges in it, just in case I should need them, I start to check the ground around the spruces. There was a heavy frost and every step left a print, so finding where he went in was no problem. Moving around the area I hadn't been able to see, looking carefully, I could find only deer tracks. They probably had left during the commotion. Kneeling often to look under the spruces, I went the whole way around the thick trees. Before long I was back to where I had started. I'd seen nothing but my own tracks in the frost and leafy moss.

The sun was coming out and it made waiting more pleasant. I was 300 yards from the camp where the men I was suppose to hunt with were staying. They had left without me, as prearranged. We were supposed to meet later after we had all "still" hunted. Finally I heard them. Now to get their attention. There was Ron Lebo outside his camp. I hurried over. "Come quick, Ron, I need your help." I hurriedly told him my story. We went to the log cabin for more help.

Opening the door without knocking, I found them eating a late breakfast after being out earlier. Gene Witmer and the others just looked at me as I told them to "get your rifles and come quickly!" At last they appeared to believe me. As Dennis Mull started to move, I went outside to watch the spruces for the bear. Now there were five of us. A roster was quickly scribbled on some old note paper. Sticking the captain's copy in my coat, we decided Gene and I would make our way slowly through the trees, checking all the way.

### **November 20—Late Morning**

Ron positioned Dennis and his father, then himself, to cover the bottom, middle and top. Hoping that was enough, we started through, crawling 10 or 15 feet then lying down and checking.

We were about one-third the way through, Gene 30 or 40 feet downhill to my left, when I looked ahead and saw a large dark blob with little shape. A chickadee had been hopping in front of me. When it flew, its little noise made me turn my head. When I looked back, I could see right through the spot where the dark blob had been. Within seconds a rifle cracked to my



left. Then everything was still. Minutes passed. Finally I called to Gene, who responded with, "He's hit, stay put!" More minutes passed. Then on the lower left stand a rifle cracked once—twice—three times, and Dennis called "I got him!"

It didn't take long for all of us to gather around the shiniest, blackest, large black bear you could want to see. Everyone was laughing, shaking Dennis's hand, and touching the bear. Soon it was tagged and dragged into position where a four-wheel-drive could get to it.

#### November 20—Afternoon

We delivered the bear to the Gaines check station and found his weight was 350 pounds.

Some time later, after numerous stops to show him off, everyone telling his share of the story, many pictures and lots of laughter and camaraderie that only a group of sportsmen can know, he was hung on the log cabin porch. Sure looked fine. Everyone figured the only way he could have been more thrilled would have been for *everyone* to bag a bear.

## young artists page

**Strutting Gobbler**  
Edward Krkoska  
Erie, PA  
Tech High School  
Grade 11



**Whitetail Deer**  
Dawn Evanchock  
Windber, PA  
Windber High School  
Grade 9







**I**T WAS the Saturday after Thanksgiving, and the last chance I'd have to hunt small game for about a month. It had been a good season so far; I'd bagged at least two rabbits each time I managed to escape the pressures of my job and the never ending chores about the house. Today I hoped to wrap up the season by getting my limit, an achievement that had eluded me so far in 1985.

Weather-wise, the season had been pretty bad for rabbit hunting. Most of the days had been unseasonably mild with little or no frost. Instead of snow, there was constant rain. It seemed that my dog Snert (named after the comic strip character Hagar the Horrible's dog) was able to scent rabbits best on clear frosty mornings and on packed snow. This year's weather was anything but ideal.

Not being an early riser, it was already 8:30 when I arrived at my father's farm and nine o'clock when I got into the woods. It was another of those so-so days, mild and slightly overcast. Snert and I were working along Catawissa Creek, searching areas where we had found — and I had missed — rabbits before. Hunting is tough along this creek. Large rhododendron thickets and stands of young hemlock trees trap a lot of debris when the creek floods. These piles are perfect cover for rabbits, and this year grouse were present, too. The sheer density of this cover makes it difficult for both man and dog to hunt this area.

### **Gifted Nose**

Snert has a gifted nose, and he quickly picked up rabbit scent from the night before. However, it had rained steadily all night long, and whenever the rabbit crossed an area without overhead cover, the scent was washed away. After a half-hour of intermittent barking, I knew Snert would not start this rabbit unless he happened to stumble upon him.

Moving farther down stream, we came to an area where the creek bank was overgrown with briars, small hem-

# **A Perfect Game**

**By Stephen Bushinski**

locks and marsh grass. Snert quickly picked up a scent. Again, I could tell that the night's rain was slowing him up, but there was no mistaking the urgency of his voice now. He was clearly on a hot trail.

I had started many rabbits in this patch of woods but, because of the thick cover, never took one here. Normally, the dog would start the rabbit, chase him into one of our cornfields, and then, after an hour or so, chase him back toward the woods. On these occasions, if I correctly guessed the rabbit's path, I usually bagged him as he crossed an open stretch between the cornfield and the woods.

Snert had been barking for about 20 minutes, but there was still no sign of the rabbit. I shifted position often, always kicking through likely bits of brush as I went along. Finally, I took up a position on a small sandbar overgrown with briars and waited. The dog was clearly closing in on the rabbit, and I expected action at any time.

The rabbit exploded from a clump of briars not two feet from me, ran directly behind the dog (who was too engrossed in the scent to even notice), and disappeared behind some rhododendrons. I didn't even have time to raise my gun. I had been walking around that rabbit for 15 minutes before he jumped.



**HUNTING** is tough along Catawissa Creek. Rhododendron thickets and stands of young hemlocks trap debris when the creek floods and make perfect cover for rabbits.

Snert immediately picked up the scent and ran off in the direction of our cornfield. Large puddles from last night's rain lay between the rows, however, and, to make matters worse, it started to rain again. This was no slight drizzle, but a steady downpour that soon washed out the rabbit's scent and left both me and Snert soaked and discouraged. About noon, we tramped back to the farmhouse for lunch.

"How many did you get?" my father asked. He asks me that every time I return from a hunt.

"None, Dad," I replied.

"Such a hunter!"

I was used to my father's good-natured jibes since I have been hunting with him for a long time. While most hunters seem to prefer deer or bear hunting, my father has always liked rabbits. He feels that hunting rabbits is more exciting and I agree. I knew I was in for some ribbing when I came back empty-handed, but both of us knew that the day wasn't yet over.

After Snert and I had eaten, we drifted northwest to a neighboring farm I hadn't hunted this year. It was especially good for rabbits, but I hadn't been able to ask the landowner for per-

mission to hunt there until the past week. Now Snert and I were ready for our last hurrah of the season.

I had just posted myself on the rim of a small ravine when Snert let out a howl. He had roused a rabbit. He went down the ravine to my left before I could get into position to shoot. I wasn't worried, though, because Snert's "crisis" bark told me he was hot on the trail. I followed the chase by sound alone. Soon they were across the ravine on the top of the hill I was facing. The rabbit obviously was running a full circle. When the dog started coming down the hill to my right, I figured I'd see the rabbit in the bottom of the ravine.

I spotted him moving at an easy gait through a small stand of hemlocks. His natural camouflage didn't work against the green ferns and trees. I shot him cleanly with the improved cylinder barrel of my Ruger Red Label 20-gauge. At least I would not be shut out today.

After picking up the rabbit, Snert and I climbed the north slope of the hill. We moved slowly for we were on familiar terrain. We soon reached a small field dotted with spruces 15 to 20 feet high. They made ideal cover for rabbits, and I knew we would soon have action here.

### Out of the Spruces

In the past, the rabbits generally ran out of the spruces, down the side of the hill, and finally to the ravine where I had just shot the first one. Rabbits are as likely to run from the west end of the spruces as the east, and it's possible to cover both routes at once. Today, however, I chose to stand on the west side, near the remains of a small outbuilding.

Shortly after taking position, Snert let out his "discovery bark," and I knew the chase was on. He continued barking for about five minutes, without too much excitement, until suddenly, the rabbit casually hopped out of a clump of spruce trees not twenty feet away. I shot him cleanly. A few minutes later,



still on the rabbit's scent, the dog caught up to me. I showed him the rabbit and then we moved on. We were now two for two.

We nabbed the next rabbit five minutes later, quite by accident. Snert had just wiggled under a spruce tree. All of a sudden, a couple of trees away, a rabbit jumped out. I was in exactly the right place at the right time. I shot this rabbit before he had a chance to move. We were now three for three, and no more than 30 minutes had elapsed since I'd shot the first one. We were clearly on a roll.

#### **Fourth Rabbit**

Snert started a fourth rabbit on the east end of the farm and quickly ran him up to the same spruces where I had shot the last two. I immediately posted myself where I could watch both the east and west routes. Soon, from the sound of the barking, I could tell the rabbit would come down the west side, almost exactly where I had shot the second one. I got ready, mentally congratulating myself for getting my limit.

I was premature. This rabbit ran wider than I had expected, then behind some cover I couldn't see through, and into a groundhog hole beneath the old outbuilding. Snert trailed him that far, then gave up in frustration.

It was now three o'clock, and I realized there wasn't much daylight left in this November day. Snert and I moved to the head of a large gully where farmers had been dumping rocks and logs as long as anyone around these parts could remember. The area around the head of the gully was planted in corn. The fields along the sides were not cultivated, but covered mostly with goldenrod. We usually had a lot of action here.

Snert plunged into the head of the gully and immediately jumped a rabbit. The dog's cries were urgent from the start, indicating a hot trail. I got just a glimpse of the rabbit as he dashed into the unharvested corn, but couldn't get a clear shot. The dog's barking grew fainter as he followed the rabbit

deep into the corn, and then grew louder as they both circled back toward me. I prepared for a shot, but was disappointed as the rabbit swung back into the corn without showing himself. This circling continued for half an hour. The rabbit passed near me several times, but I never saw him because of the corn.

Snert stayed in hot pursuit and, finally, the rabbit tired of circling through the corn and headed down the gully. I knew my only chance would come within the next few minutes.

I hurried out of the cornfield and stood at the rim of the gully where I could clearly see the bottom of the depression and the field on the opposite side. Snert was baying down at the lowest end. I knew the rabbit was probably already on his way back toward me, and I expected him to double back up the gully to confuse the dog.

A flicker of movement in the field across the gully drew my attention. I caught the barest glimpse of the rabbit running through the weeds. He was moving rapidly from my left to right, and was hard to distinguish from the brown weeds. I swung the shotgun and fired. Missed, I thought. I ran across to the gully to make sure though, and on the way Snert caught up to me and ran past where I thought the rabbit had been when I shot. I was examining the ground for blood when I realized the barking had stopped. I looked over at Snert, and there he was, sniffing the inert rabbit. I had got him after all.

#### **Weary But Content**

Snert and I trudged the mile back to our house, weary but content. I'd had a perfect day—a perfect game in baseball jargon. I had fired four shots and had four rabbits. This was by no means an everyday occurrence for me. There is a large element of luck in all forms of hunting, even rabbit hunting, and I had just had a remarkably lucky afternoon. Still, I was pleased. I would be even more pleased when I got home and showed all four rabbits to my father.

# The Farmer's Choice

By Burl N. Corbett

**T**HROUGHOUT the late summer and early fall of 1979, there had been much talk of a big buck. In August, groundhog hunters, glassing the edges of clover fields in the evening mist, had seen it feeding warily, usually alone. Its sheer size, not to speak of its impressive rack, provoked considerable excitement. In September, a party of dove hunters startled it in a cornfield. As it crashed noisily through the dying corn and bounded across the surrounding pasture flecked with the greens of grass and the golds and yellows of fallen poplar and aspen leaves, the men stared in wonder until it disappeared into the woods, its white tail blinking among the trees. So it went that autumn. As the sightings increased, so did the animal's size and number of points on its rack. By October it had assumed truly mythological proportions.

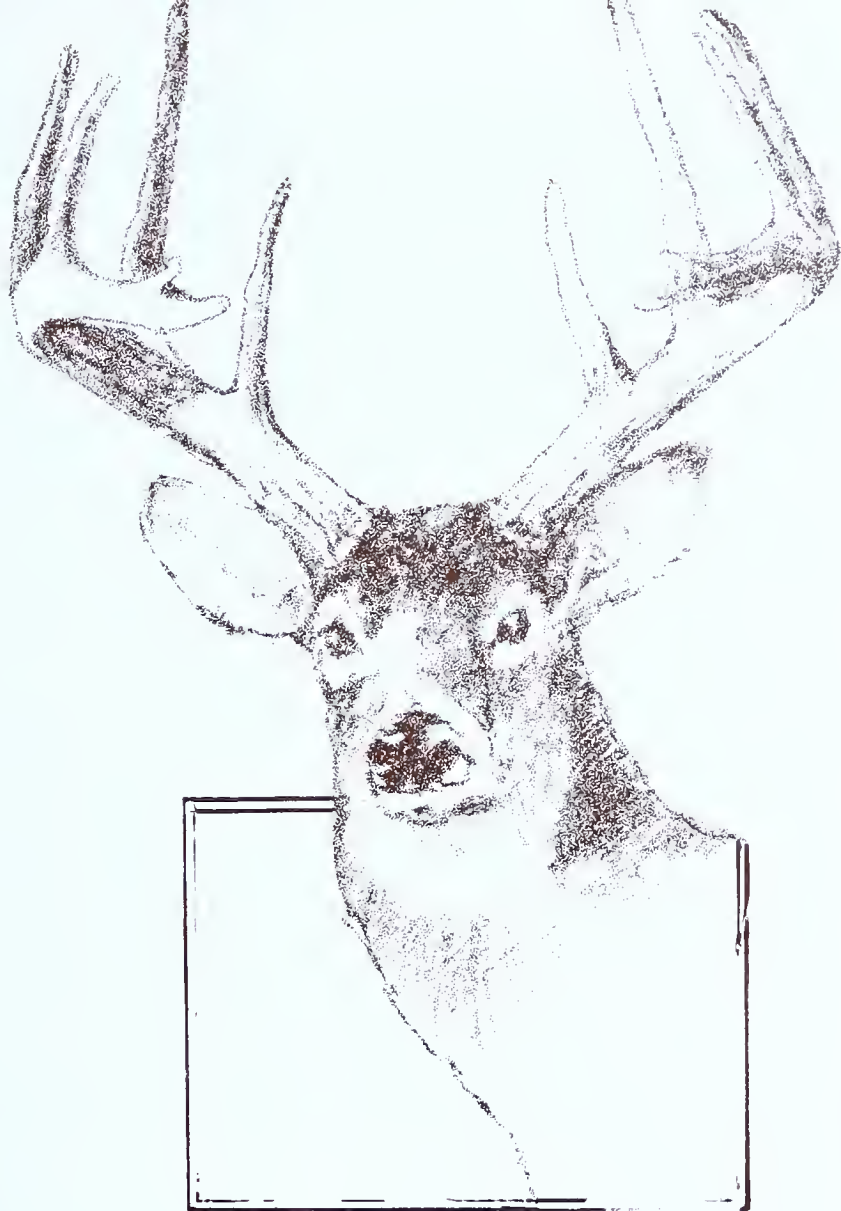
## Sightings Ceased

But then, strangely, sightings of the deer ceased. No longer was it seen crossing the back roads at twilight. No longer did it leave cars full of electrified youngsters in its wake as it bounded across the rural roads. Neither early rising farmers nor late-riding spotlights saw it for weeks. It was gone. The woods of Union Township were choked with archers from Birdsboro to the edge of French Creek State Park from morning to night. Although numerous deer were taken, and some nice bucks, too, none could even remotely be mistaken for the big buck. In barrooms and restaurants, gas stations and Grange halls, the talk was now of poachers. Rumors were rife, reports of late night shots were recalled, names of suspected jacklighters were whispered. When archery season closed the buck had not been taken — at least legally.

October ended with a series of killing frosts and drenching rains. The trees were bare; around the old farmer's house and barn the walnut trees stood stark against the early winter sky, their remaining nuts awaiting the wind that would send them thudding to earth. When small game season opened, most local hunters headed north for turkeys. The old farmer, however, plodded about his farm and shot an occasional rabbit. More often than not, though, he would see just a brown blur with a white scut as it dissolved into a thicket, leaving him standing, old Lefever double at his shoulder, awaiting a shot. He did manage to bag a couple of pheasants and miss a few grouse, but that was of no great matter. Being in the fields and woods as nature changed its linen was reward enough.

Throughout the season he looked for deer sign. There was much of it; rubs and scrapes seemed to be everywhere. His farm, he thought, was aging with him. The pastures were thick with cedar and wild cherry, and deer trails, branching and forking as if by whim, webbed the land in a filigree of flattened grass. Sometimes, deep in a tangle of honeysuckle and dogwood, he would surprise bedding deer. With snorts and a thrumming of hooves, they would burst away, leaving a musky redolence over their faintly steaming beds. Then he would wonder about the big buck — was it still alive? The deer hadn't been spotted for over a month. Most people assumed he was dead, butchered by a night-hunter while transfixed by the last light he ever saw. Talk turned to other deer flushed during small game; some nice bucks had been seen. The big buck, however, was scarcely mentioned. It wasn't that anybody had actually thought they would kill it. To see such an animal was one





**THERE HAD** been much talk of a big buck. Groundhog hunters had seen it feeding warily. Its sheer size, not to speak of its impressive rack, provoked excitement.

thing; to hunt it and shoot it — and become part of a legend — was another.

The old man had never even seen the buck, although most of his neighbors had. One even saw it cross the road not a hundred yards from the farmer's barn. But that had been long before. The old man went about his morning and evening chores, feeding his few remaining animals. And he always

watched the meadow and the stubbled slope of the cornfield where it merged into the woods. He often saw deer, sometimes in the morning but mostly at dusk. He would lean on the weather-split fence boards and quietly watch them feed until the fading light drew the shadowed ground against the sky and they were swallowed into the night.

While he watched, he'd think of how lovely they were, but he would also remember the damage they wreaked on his young crops. He would recall the sheer beauty of the summer-red does and the awkward gracefulness of the spotted fawns as they fled before his

tractor when he made his first cutting of hay in June. And, as he leaned contentedly, he would think of all the opening days he had hunted and of the many deer, bucks and does, he had taken over the last sixty-odd years. He couldn't remember them all. The individual racks, none big, and the circumstances of the kills all blended together in a time-faded tableau that ran back to his youth and his first deer (which he *could* remember). All the deer he had ever seen or killed or missed seemed no more important nor unimportant than the deer that were now feeding before him.

### Slowly and Contentedly

He would think of all that while behind him his stock would bellow and bawl, and in the loft above him pigeons would murmur and coo, and then, when the light had faded and the panes of his farmhouse glowed across the yard, he would turn and walk slowly and contentedly to his wife and dinner.

As the weeks before buck season passed, the old man did some more small game hunting and saw more deer, and he gradually narrowed the possible locations of his stand to a few time-proven trails and crossings. Late at night, inflicted with an old man's minor insomnia, he would think of them in detail, weighing each one's merits against its drawbacks. Eventually he would drift into sleep, but when he awoke, it was without a clear decision. It had always been like that. Selecting a stand was as much a part of hunting as sighting in the gun and the quickening anticipation as the opener neared. When the day arrived, though, he usually found himself on stand at a spot so logical and obvious that he always wondered why he had even bothered to trouble himself thinking about choosing.

The first day of 1979 dawned warm and rainy. It had rained heavily the day before and had not slackened overnight. He had arisen early and fed his stock, accompanied by the drumming of rain on the barn's tin roof. He

walked across the sodden, puddled barnyard as the wind-slanted rain fell in sheets and splashed under his slicker. On the porch, slick with blowing rain, the thermometer read 72—almost his age. Too hot to hunt, he thought. He opened the door, the wind almost tearing it from his hand, and stepped into the kitchen. His wife sat at the table, staring into the darkened window. The farm report played low on the radio. He kicked off his galoshes and shed his raincoat; underneath he was thoroughly damp.

His wife's reflection spoke to him from the window, "I believe you better stay in awhile, John. It's too ugly to hunt."

Twenty years before, even ten, he would have laughed as if she were joking. But now, wet with sweat and rain from the short trip to the barn, he agreed. "Might as well. Won't be anybody out moving them anyhow."

She turned from the window as he sat down heavily. "The radio is calling for it to clear off later and turn colder," she said. "those deer aren't going anywhere; they'll keep."

I reckon they will, he thought as he looked at his wife, but I wonder how much longer we will.

The rain stopped around noon and the wind shifted to out of the north and died down a bit. Three hours later, the old farmer stood by a large poplar and watched a trail that ran from the swamp into the woods. He had heard little shooting, none of it close, and he had yet to see a deer. It was growing colder and he shuffled restlessly around the tree. A gray squirrel chattered its way up an oak. Above the rain-blackened branches of the trees, clouds were scudding ahead of the approaching front. High against a patch of blue, like a speck of sentience in the iris of God, a hawk drifted silently. The woods were still, save for the soft patter of moisture dripping from the trees.

The shot was so loud and so close that he jumped. A second shot was an instantaneous echo. Then there was a sudden splashing as deer came through



the swamp behind him. He whirled, cocking his old 94 Winchester, in time to see two does split and disappear into the woods. Then he saw the buck. It was at the edge of the swamp, looking back over its shoulder, its white rack huge and swept wide. The rifle automatically came to his shoulder. He fired and the buck leaped, its hooves dripping muck, and ran up the slope into the woods and then stopped, looking wildly around. I missed. The biggest buck I ever saw, the big buck and I missed, the old man thought. He jacked another round into the chamber and took a firm rest against the tree. The buck stutter-stepped nervously in the heavy brush. The bead of the old man's rifle found the target, then lost it; the buck refused to stay still. Then it saw him. In the instant it took to tense and leap and disappear, the old man could have shot. But he didn't. His eyes met the deer's and in that brief tic of time he knew it wasn't to be his. It's a bad shot, he thought. Might wound it. Then the buck was gone and he lowered his rifle and stood shaking for the first time since his first deer all those many years ago. I had my chance and I missed it. It ain't for me, he mused. The woods were still again, and then another shot, just one, sounded deep in the woods.

The old farmer walked to where the neighbor's young son stood in ecstasy, the buck at his feet, its eyes slowly glazing over. He was almost upon him before the boy looked up, his face alive with pride.

"I got it, Mr. Shatz, I got it. The big

buck everybody was talking about!"

"So it is," he said, bending to count the points. "And it's an honest 12-pointer." He knelt stroking its head, his thoughts far in the past, while the boy babbled on and on.

I knew your daddy, he thought, contemplating the deer, and your granddaddy and his daddy too. I knew your ancestors and I loved them and I killed them when I could and never regretted it. And I don't regret missing you.

The boy watched the old man as he knelt over the deer and wondered why he was so quiet. "Was that you who shot, Mr. Shatz?" he asked.

He creaked to his feet and smiled.

"Why, no, it wasn't. Must of been someone else."

"Didn't you see him? He must have run right past you."

The old man looked at the boy and at the deer and at the woods that he loved. He thought again of all the deer he had killed and of the one that he didn't, and he was happy.

"I thought I saw something, son, but I guess these old eyes ain't what they used to be."

The boy looked at him thoughtfully. "I guess I'm glad in a way that you didn't see it. If you had, I know you wouldn't have missed."

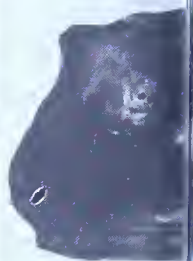
He laughed. "Let's get him dressed and I'll fetch my tractor and tote him home for you."

The old man and the youngster removed their coats, and in the darkening winter day they worked on the deer, talking quietly amid the shadowless trees.

## Cover Story

Nothing snaps a hunter to attention like a cackling ringneck rocketing out from underfoot. Although these Oriental transplants aren't nearly as abundant as they were a decade or two ago—because of habitat loss and new agricultural practices—there are still quite a few around for those willing to tear through the thickets, bust through the brambles, and scour overgrown fields. Even if not as numerous as in the past, for diehard pheasant hunters willing to make the effort it takes to find them, the thrill of pheasant hunting can still be had.

# Black Be



DAVE HANES, left, of Erie;  
above, ED WINKLER, Walnut-  
port.

JEFF LEF  
476-lb. be



FRANK BELL, of Fran  
FEIDT, Dalmatia, with

BOB NEGVESKY, above left, of Eynon; JIM  
BRILL, right, Douglassville; and below, MIKE  
MILLER, of Bally.

MIKE WARNER, below, of Hawley; right, DICK  
BALLOU, Honesdale, and 470-lb. trophy.





# our Trophies



Eynon, and his



ED HUJSA, Northampton, above, and  
GENE HARDENBERG, right, of  
Schnecksville.



in above, with his 270-lb. blackie; above right, RUSTY  
his 100-lb. bear.



MIKE HAVIS, above, Slippery Rock; BRUCE  
BOWMAN, below, Gordonville.





# FIELD NOTES



## Numbers Are Up

**CLARION COUNTY**—Based on the number of sightings, the fact that one was killed for crop damage, and another took a stroll through downtown Rimersburg every day for a week, we should have a good bear season here. —DGP Jim Egley, Knox.



## Ear Piercing

**BUTLER COUNTY**—Among the June Field Notes was one about a Bradford County deputy who let out a “blood curdling” scream after stepping barefoot into the snow. I feel I have a deputy who may be able to outcream him. This deputy—who shall remain nameless—was recently asked to crawl into a culvert where a beaver was hiding. I was to bag the critter when he came out. However, when the beaver looked out my end of the pipe, it turned and ran back. The deputy ended up needing ten stitches. Standing at the other end of the pipe, I immediately realized I have an Olympic-class screamer on the force. We did capture and release the beaver. I don’t think it was harmed, but I did hear that 12 days later it was still holding its ears. —DGP Ned Weston, West Sunbury.

## Hosed Down

**WARREN COUNTY**—DGP Shultz and I recently asked the local fire company to help us remove a bear from a tree in Tidioute. Being good firemen, Jack Shields and John McCawley responded with truck and hose and proceeded to spray the bear. After several minutes, the bear finally climbed down to dry ground and headed for, of all places, the Allegheny River. Thanks, guys, for helping to make this situation “bearable.” —DGP Barry Zaffuto, Tidioute.

## The Right Way

**JEFFERSON COUNTY**—State Game Lands 31 is an excellent example of proper stripmine reclamation. P&N Coal worked with us to maintain three half-acre sediment ponds. Basket willow was planted around each and the ponds remained clear and full. A year later, 100,000 seedlings of several varieties were planted and they, too, grew well—some of the bristly locust reached over six feet. Birds, deer, bear and turkey are all found on what not very long ago was a barren landscape. —DGP Don Garner, Punxsutawney.

## At Birth

**SUSQUEHANNA COUNTY**—Deputy Bruce Carey received a call from a Heart Lake resident who reported that five beaver kits remained on his property after I had just removed two adults. I didn’t think the adults had any young and my belief was confirmed when the property owner asked Bruce how old beavers had to be before their tails became flat. —DGP Charles J. Arcovitch, Kingsley.



## Promising

If the weather cooperates, this should be a good year for grouse hunting. In June I located five broods on public land. —LMO Bob Rea, Ridgway.

## Dramatic

**ELK COUNTY**—While traveling an old road on the Game Lands, I came up behind and got to within 30 yards of a hen turkey. I was surprised to get that close until I saw a red fox stand up about 20 yards in front of the bird. It was obvious the turkey had been so intent on the fox that she didn't notice me. The fox was aware of my presence, though, and it reluctantly left. The hen, still unaware of my presence, walked around where the fox had been and even surveyed the area from the top of a stump. Then, to my amazement, she called eight small poults that had been hiding only 25 yards from me. She paraded them within 15 yards of me along a small stream to a calm place where she could get them safely across. Knowing how vulnerable small turkey poults are when wet and cold, I suspected that some would die from this ordeal. But after watching the hen brood them for nearly a half-hour, she left the area with all poults safely in tow. I left feeling that nature truly is amazing, and it's a wonder any poults survive if this was a typical hour of a turkey's life. —DGP Dick Bodenhorn, Ridgway.

## Mixed Up

**LYCOMING COUNTY**—While investigating the poaching of what would have been a trophy buck (it was in velvet when killed) we found the violator was possessing a fawn. He claimed he was going to release it when it grew up. He wasn't the least bit concerned about killing the adult deer, but he was worried about what we were going to do with the fawn. Somewhere, somebody's priorities went astray. —DGP Dennis Dusza, Williamsport.



## Tight Quarters

**ADAMS COUNTY**—I was quite surprised when I checked a couple of box traps I had set for skunks. The first was empty but the second held not one or two, but three. The landowner was happy, but the skunks weren't and neither was I. It wasn't easy convincing them that being crowded is nothing to raise a stink about. —DGP Mike DuBaich, Aspers.

## There Were 5 More in the Poconos

**LANCASTER COUNTY**—This past summer I helped a friend take his boat down the Chesapeake Bay, from northeastern Maryland to Salisbury. Almost every buoy and channel marker we passed over the 130-mile trip had either an osprey nest or an osprey on it; we saw over one hundred in all. Even more noteworthy was that a pair of ospreys nested here this summer, near Peach Bottom. This was the first osprey nest on the lower Susquehanna in 25 years. The number of these birds on the Bay, and the fact that they are once again nesting in Pennsylvania, shows that the ban on DDT has worked, and that osprey eggs are now thick enough to be incubated. It also shows that some species can make a comeback with a little help from their friends. —DGP John A. Shutter, Jr., Lancaster.



### Routine Day

**BUTLER COUNTY**—On this job, we never know what a day will bring. A recent Monday started when I had to deal with a person who had picked up a baby bird, and then another whose children were in the yard, petting baby skunks. A duckling wandered up to a woman who wanted it rescued, and then a sick opossum showed up on someone's patio. An injured pregnant rabbit needed attention. It was followed by a duck with a broken leg and a complaint of owls dive bombing people. Then I had two roadkills to pick up. The day ended answering and returning phone calls.—DGP Larry Heade, Butler.

### Overloaded

**McKEAN COUNTY**—On July 7, the Earth's population reached 5 billion. Like wildlife populations, ours is also limited by food, water and shelter. Some people fail to realize how many global problems are due to this high population. To think that Americans won't be affected by these problems because we live in a land of plenty is a terrible misconception. The earth is just a ship and we're all passengers on it. To think we can overload one end of it without affecting the other is foolish. To put it simply, when the back of the ship sinks, so does the front.—DGP John Dzemyan, Smethport.

### Super Sticker

DGP Cliff Guindon, Somerset, deserves a track and field award. He chased a nuisance bear almost a mile and then, when he got close, he heaved his tranquilizer jab stick javelin style and successfully tranquilized the animal.—Regional Forester D. E. Little, Ligonier.

### A Little Consideration

When Bill Replogle went into his silo to start feeding his cattle last year, he found a clutch of barn owl eggs. They were moved to a platform in the silo, but the parents didn't return. This year he started feeding silage about two weeks later than last year, and when he opened the silo he found some eggshells, one egg and, after some searching, a young barn owl. This time around, Bill scheduled his feeding later in the evening to minimize disturbance. So far, the rescheduling has worked out to his and the owls' satisfaction.—LMO Steve Schweitzer, New Enterprise.

### Or Another 16

**PERRY COUNTY**—It took me 16 years to finally decide to put a concrete floor in our garage. As luck would have it, however, a Carolina wren built a nest in, of all places, a Game Commission life vest I had hanging in it. Because my wife wouldn't let me work in the garage until the wren was finished raising her three young, I'm now working on year 17.—DGP LeRoy Everett, Newport.

### Too Close

**ERIE COUNTY**—A local homeowner had a feeder located near a large window, and seven birds were killed trying to fly through it. The problem was solved just by moving the feeder farther away.—DGP Andrew Martin, Erie.



## For Your Own Good

**CLEARFIELD COUNTY**—Before I became a Game Commission officer, people often spoke frankly to me about their hunting exploits and even admit to game law violations. One common admission was the refusal to wear fluorescent orange while hunting deer. Many didn't use it because they felt deer could see the safety color. My response was, and still is, that on many occasions I have had deer approach to within 20 yards of me while I was wearing fluorescent orange and, secondly, shooting a deer is hardly worth risking your life. The second statement usually silenced them. Please—wear fluorescent orange while big game hunting. Don't become a statistic.—DGP Colleen Shannon, Luthersburg.



## Hungry

**BRADFORD COUNTY**—Paul Steele, Orwell, asked me to come and help him decide what was chewing the shingles on the side of his house. I assumed it was probably porcupines, but when I investigated was astonished to find that Mr. Steel had apprehended a woodchuck in the act just before I got there.—DGP A. Dean Rockwell, Sayre.



## Movin' In

**JUNIATA COUNTY**—This past summer I received reports of bear sightings from one end of the county to the other. Bears were seen outside Richfield, on Shade Mountain, along Route 75 outside Waterloo, and several points in between. Most of these bears were young males, no doubt establishing territories and searching for mates. I expect bears to become permanently established here within the next several years, especially on Shade and Tuscarora mountains where their contact with man would be minimized.—DGP Dan Clark, Honey Grove.

## Above and Beyond

**BEDFORD COUNTY**—Every spring, PGC officers try to check at least 15 roadkilled does. We record their ages and the number of embryos each was carrying so biologists can calculate productivity rates for every district. Much of this is handled by deputies from the Fish and Game Commissions, who normally get no recognition for helping with this unpleasant task. Two officers from this district, however, just have to be recognized for the sacrifices they each made to get me my quota this year. Thanks to Deputy Game Protector Johnnie G. Corle and Deputy Waterways Conservation Officer Ron Hoffman, I was able to fulfill my quota the day before my report was due. I would like to take this opportunity to say thanks, guys, and I hope you both found your automobile insurance companies most understanding.—DGP Jim Trombetto, Woodbury.

## Our Thanks, Too

**LEHIGH COUNTY**—I was asked to present a program to a group of Bible School students from Slatedale Holy Trinity Union Church. I met the group at SGL 217, Bake Oven Knob. As the students filed off the bus each was given a garbage bag and asked to pick up any trash they saw as we hiked out the Appalachian Trail to the Knob. The youngsters took to their task with surprising enthusiasm. They cleaned up not only the trail but also the surrounding woods and both parking lots. My thanks goes out to Pastor Jim Knappenberger and his group of conservation-minded youngsters for making the Bake Oven Knob area a little more pleasing to the eye. —DGP T. M. Grenoble, Fogelsville.



## Popular Attractions

**CRAWFORD COUNTY**—I was sneaking up on a small group of wood ducks in hope of getting some photographs. I wanted to get close, jump up, and photograph them taking off from the secluded pond. After considerable crawling and slithering, I was just starting to rise when out of the corner of my eye I glimpsed a red fox which also had been stalking the woodies. Between watching the fox and the woodies, I forgot to use my camera, but I have some great pictures stashed away in my mind. —DGP Rob Criswell, Saegertown.

## Vegetarian

**TIOGA COUNTY**—I sure was surprised when I checked a trap I had set for a nuisance beaver. I found, instead, a great blue heron. I used to think they preferred fish over aspen twigs, but now I'm not so sure. —DGP John Snyder, Wellsboro.

## Let's Forget the Heat

**BERKS COUNTY**—As I write this, the temperature is 93 degrees, the humidity is 95 percent, and the air conditioner is straining to keep the office cool. The dog days of summer are upon us. By the time you read this, the nights will be clear and crisp, the daytime skies will be deep clear blue, and the leaves will be about gone. Best of all, another hunting season will be upon us. Please practice safe hunting procedures and wear fluorescent orange so we can all look forward to roasting again next summer. —Robert L. Prall, Birdsboro.

## Prepared

**WASHINGTON COUNTY**—When we conducted a seminar to discuss the new ten-hour course format with the area's hunter-trapper education instructors, we were pleasantly surprised. Each of the instructors came with good ideas which he was willing to share with the group. I'm sure everybody picked up some good ideas that will improve their courses. Thanks again, guys, for devoting another Saturday to making Pennsylvania a safer place to hunt. —DGP R. Matthew Hough, Washington.

## Needs Help

**FULTON COUNTY**—Retired Game Protector Carl Jarrett has been so busy that the other day he asked if I could assign him a couple of deputies to help him retire. —DGP Mark Crowder, McConnellsburg.





COMMISSIONER ELMER RINEHART symbolically breaks ground for new PGC headquarters, flanked by Commissioners Donald Craul, Roy Wagner, C. Dana Chalfant, Thomas Greenlee, Paul Hickes, Clair Clemens, and Taylor Doeblor.

## Ground Broken For New Commission Headquarters

**G**ROUND WAS broken on August 5 for a new building that will house the Pennsylvania Game Commission's central headquarters, training school and warehousing facilities in Susquehanna Township near Harrisburg. The complex is located on Elmerton Avenue near the State Police Departmental Headquarters.

In addition to Game Commission representatives, the groundbreaking ceremony was attended by numerous

state and local officials, building contractors, and representatives of various conservation organizations and sportsmen's clubs.

An important milestone in the Commission's long and proud history of service to the citizens of the commonwealth, the groundbreaking formally marks the start of construction on a project first envisioned back in 1970 when the General Assembly authorized the transfer of 15.5 acres of Harrisburg State Hospital land to the Commission for the purpose of building its own central headquarters. The project has been in various stages of planning and development for the past sixteen years.

In his remarks at groundbreaking, Commission Executive Director Peter S. Duncan recalled, "For many years our agency occupied free quarters in the old South Office Building. But in 1979, to make way for expansion, we were forced to vacate the Capitol complex and move to rented facilities on



Derry Street in Rutherford, about as far away from the Capitol as you can possibly go and still have a Harrisburg address."

Duncan went on to say, "For any number of reasons, not the least of which are annual \$300,000 rent payments, the Commission has never been comfortable in Rutherford. The building is inadequate for our needs, and has always been viewed as 'temporary' quarters pending design and construction of our own building.

"For several years, while we were settling-in at Rutherford, the new building project was shelved. Then in 1983, we undertook a rather vigorous and deliberate campaign to get the attention of lawmakers and the administration—to make them aware of the money wasted annually as we continued to pour millions into rentals. In fact, before our new building is completed next year, the Commission will have expended more than \$2,165,000 in rentals since leaving the Capitol complex in 1979."

### Efforts Praised

Duncan praised efforts of House Game and Fisheries Committee Chairman Russ Lettermen, whom he credited with "drafting and guiding legislation, back in 1983, that finally cleared the way for us to be here this morning." (Duncan was referring to House Bill 820 which authorized the Commission to allocate \$4.9 million to design and construct new facilities on its Elmerton Avenue property.)

"I think it's also important to note," said Duncan, "that Senate Game and Fisheries Committee Chairman Jim Rhoades also championed House Bill 820. Senator Rhoades, Representative Letterman and other supporters in the General Assembly have always remained steadfast in their decision to authorize this project—aware these buildings will save the Commission, and sportsmen, more than \$25.6 million over the next 40 years."

Duncan also recognized the efforts of former Commission Executive Di-

rector Glenn L. Bowers, and Deputy Director Harvey Roberts, whom he credited with "providing the leadership to get this project off dead center—off the back burners and in front of the people who would recognize its practical and economic merits."

Also mentioned was Commissioner Paul A. Hickes, a recognized and successful general contractor who has served as Chairman of the Building Committee—and who has provided invaluable experience and working knowledge of construction engineering and design.

Duncan praised members of his own staff, including Bureau Directors Jacob Sitlinger and Ken Hess, whom he recognized as "having worked diligently with the architects and General Services personnel to ensure this building will be a model in the efficient use of energy, a place where people can work effectively and efficiently in a well planned and organized environment.

"In addition to serving as the Commission's central headquarters, this 65,000 square foot building will include the Ross Leffler School of Conservation, which is being relocated from Brockway; a 200-seat theater style auditorium, and a new outdoor environmental laboratory," said Duncan. "We envision these facilities not only as our state headquarters, but also as a wildlife education center where people may come and learn about Pennsylvania wildlife and wildlife habitat."

Commission foresters and technicians will develop a five-acre tract in back of the building. It will be planted with hundreds of trees and shrubs beneficial to wildlife. There will be observation decks, walking paths, and self interpretive areas throughout the tract where people can study, first hand, how forests, woodlots, fields and backyards may be treated to enhance wildlife populations.

Commission President Tom Greenlee, in his remarks, characterized the groundbreaking as an important



benchmark for the Pennsylvania Game Commission. "On such an occasion," said Greenlee, "it's important we take a moment to look back, reflecting not so much on where we've been but more importantly on how we arrived here this morning—and on those key individuals who, years ago, set the course that pointed us in the right direction."

Greenlee praised the efforts of former Commission presidents Bob Fasnacht of Ephrata and Ed Brooks of Lansdale, both of whom are now deceased, noting, "Were they here today, they could relate far better than I the untold meetings, negotiations, and frustrations that preceded final legislative and executive approval that now allows us to construct and occupy our own facilities here in Susquehanna Township.

"Bob Fasnacht and Ed Brooks could well be termed the prime navigators who, back in the '70s and early '80s, worked so tirelessly to bring this project to fruition. Were they with us today,

I'm certain they would share in the same pride and excitement those of us here this morning are so privileged to enjoy."

Greenlee termed today's groundbreaking somewhat ceremonial, noting contractors have been on location for several weeks excavating and grading in preparation for the actual start of construction. The new buildings were designed by the Curtis Cox Kennerly architectural firm of Philadelphia, in cooperation with engineers and planners of the Pennsylvania Department of General Services. The general contractor is Ritter Brothers of Harrisburg. McClure Company, Inc., also of Harrisburg, will handle heating, ventilation, air conditioning and plumbing. The electrical contractor is Sem-Con Corporation of Brodheads-ville.

Barring any unforeseen weather related delays, the Game Commission should take occupancy of its new facilities during fall 1987.

## Migratory Bird Seasons

As explained in the September issue, we did not have the necessary federal approval to publish the migratory bird seasons at that time. These seasons have just been set as this issue goes to press. We are running them now, despite the fact that they will have opened before you read this, because several do not close for some time yet.

Pennsylvania again has a split dove season. The first season ran from September 1 through October 18; the second segment is from November 1 through November 22. Shooting hours are 9 a.m. until sunset on November 1. During the remainder of the season, hours are one-half hour before sunrise until sunset. The dove daily limit is 12, with no more than 24 in possession after the first day.

Other 1986 migratory bird seasons include:

<i>Species</i>	<i>Open</i>	<i>Close</i>	<i>Daily</i>	<i>Possession</i>
Woodcock	Oct. 18	Nov. 8	3	6
Virginia Rails	Sept. 1	Nov. 8	25	25
Sora Rails				
Gallinules	Sept. 1	Nov. 8	15	30
Common (Wilson's) Snipe	Oct. 18	Dec. 13	8	16

Shooting hours for woodcock, rails, gallinules and snipe are from one-half hour before sunrise until sunset, except November 1, when all hunting begins at 9 a.m.

A federal duck stamp is not required to hunt these migratory game birds. Hunters are reminded only shotguns plugged to a three-shell capacity and bows and arrows are legal. Rifles, handguns and shot larger than BB size are prohibited.

# Bear Check Stations



**ARNOLD SLONAKER**, of Hereford, was one of the lucky bear hunters in Pennsylvania. He took his 470-lb. trophy in Pike Co. last season.

**B**EFORE ANY BEAR lawfully killed in Pennsylvania may be possessed beyond twenty-four hours, the Game Law requires that it shall be taken to a Game Commission check station for examination. Successful hunters are advised that check stations will be in operation at all Game Commission region offices (bold face) from Monday, November 24 through Thursday, November 27. The remaining check stations will be open on the first two days of the season, November 24 and 25.

*Northwest Region*—Northeastern Forest Experiment Station, Rts. 6 and 62, near Irvine; Allegheny National Forest Storage Shed, Marienville; SGL 54 (site of former training school), seven miles northwest of Brockway off Rt. 28; **Northwest Region Office**, three miles south of Franklin, Rt. 8.

*Southwest Region*—**Southwest Region Office**, 339 W. Main St., Ligonier; Yellow

Creek State Park, off Rt. 422, Indiana County.

*Northcentral Region*—Trout Run, at intersection of Rts. 14 and 15; PGC Storage Building, SGL 208, three miles north of Gaines on Rt. 349; Lantz Corners, intersection of Rts. 219 and 6; Sinnemahoning, intersection of Rts. 872 and 120; Renovo Forestry Building, two miles north of Renovo on Rt. 120; S.G. Elliott State Park, one mile north of I-80 off Rt. 153 at Exit 18; **Northcentral Region Office**, two miles south of Jersey Shore on Rt. 44; at Penn Nursery on Rt. 322 near Potters Mills.

*Southcentral Region*—**Southcentral Region Office**, one mile west of Huntingdon on Rt. 22.

*Northeast Region Office*—PGC Storage Building two miles southwest of Tobyhanna, Rt. 423; PGC Storage Building, fifteen miles south of Hawley, Rt. 6 at Shohola Falls; **Northeast Region Office**, intersection of Rts. 415 and 118, Dallas; Monroeton Rod & Gun Club, just south of Monroeton off Rt. 220 along Twp. Road T-402 between Kellog and South Branch; Forestry Building, 1.5 miles south of Hillsgrove on Rt. 87.

*Southeast Region*—**Southeast Region Office**, seven miles north of Reading, one mile off Rt. 222 on Lauer Road.

## Bear Care

Every season many successful bear hunters let their trophies spoil. Bears, even smaller ones, are especially well insulated; if not ventilated adequately, the meat will quickly become tainted. Hunters should thoroughly field-dress bears—remove heart and lungs as well as entrails—then prop the cavity open to permit ample air flow. The carcass should be skinned as soon as possible. A Pennsylvania bear is a great trophy. Don't let one go to waste.



# Bad Weather Is Good

**T**HE DAY began with rain. It pattered on my hat, dripped off the brim and trickled inside my coat collar. I couldn't stand to have the hood of my rainsuit up—it always made me feel like I was wearing blinders—and the day was too important not to have my senses at full attention. It was the opening morning of deer season. The cold rain finally soaked through to my shirt. I shivered and shifted my seat so the tree trunk I was leaning against was between me and the storm. I put up the rain hood.

Shots pounded in the hollow below me as hunters made their way uphill from a Game Land parking lot. A rifle cracked on the ridge to my left, close. I turned that way, gun ready in case the deer was headed toward me. Nothing. A single shot sounded farther to the left and, as if on signal, the weather changed. At least that was when I first noticed the ice. The steady drumming of rain had become the hissing of sleet.

I inched my fingertips inside warm coat sleeves and adjusted the rifle on my lap so the scope and action would stay dry under a jacket edge. The barrel was already fringed with tiny icicles. I brushed them away. Everything in the late November landscape, each rock, twig, fallen leaf and wilted fern, now wore a shell of clear ice. My own fragile casing shattered when I moved my arm, the ice sliding in brittle sheets from my rainsuit.

Then the snow began, fine flakes at first that sifted white into my boot-

prints and the tracks of deer. Snow settled into the folds of my jacket, and I tasted it on my lips. The flakes grew in size and number. Through the moving screen, the trees on the opposite hillside looked softly out of focus. In the whispering storm, occasional gunshots were muffled, subdued. I shook the snow from my shoulders and huddled deeper inside my wool jacket. I was thoroughly enjoying the day.

The funny thing about bad weather is that it's worse when a person is indoors looking out than when he is outside hunting in it. Of course, dressing to stay warm and dry is the key to seeing advantage in adverse conditions. Whenever I've taken the precaution to be comfortable, I've found bad weather hunts interesting, or at least not as ordinary as the days when only sunshine was pouring down.

## Lack Personality

Fair weather hunts lack the personality of stormy ones. A storm is an event, an experience I always felt involved me deeply with the wild lands and wildlife I hunted. It may be just that both the trees and I were getting drenched, but at least I was there to see and feel how the rain altered the aspect and the mood of the outdoors.

Evergreen boughs that had been dry and dusty hang heavy in a rainstorm, wearing their water like crystal beads. A pearl-pale mist steals into the river valley and the damp earth exudes a spicy perfume, rich with the fermenting of past summers' growth. I walk quietly now on sodden leaves and spongy moss. If I meet another hunter, and we stop to talk, we whisper on instinct. To shout would be unthinkable, would destroy the melancholy beauty of the rainy day.

Rain and fog change the complexion of the outdoors, but snow works magic. A snowstorm can make a wilderness of a farm woodlot and an enticingly alien

## Another View...

by Linda Steiner



**JENNIFER DETORE**, of Jeannette, agrees with Linda—bad weather is a good time to be hunting. The right equipment makes it comfortable.

ing whiteness, the naked branches stark, grotesque. Boulders, stumps, fenceposts grow to monstrous shapes under fast falling flakes; reassuring pathways disappear. A deer track, cut fresh during the storm, its edges still sharp, gives a hunter a thrill that a track found in the mud would not. Just when I think I know the forest, it snows, and I find a whole new mystery.

Not every hunter may agree that being out in bad weather is good, which is why, for the rest of us, it's such an excellent time to be afield. On stormy days, there is less competition from fair-weather gunners, and wildlife may be active at unusual hours. That adds up to more opportunities to take game.

But practicality is not the only reason for being out in the rain or snow. If we wish to hunt then, we must accept the terms that nature dictates, the sometimes harsh conditions she sets for enjoying her company. Rather than spoiling the day, acquiescing to the whims of the weather is refreshing. For once, something bigger than man is in charge. There are so many facets to the personality of the outdoors that a hunter will never get to know it perfectly, if he's just a sunny day sportsman.

land of a familiar forest. Through the drifting white veil, a hunter can't see the farmhouse across the field. He feels he could be at the edge of the tundra, on a Far North adventure, as much as back home in Pennsylvania. A day in a snowstorm is a journey, without the effort.

Woodlands that had seemed tame, through long acquaintance, have a disturbing wildness about them while it snows. Trees are darker against the sift-

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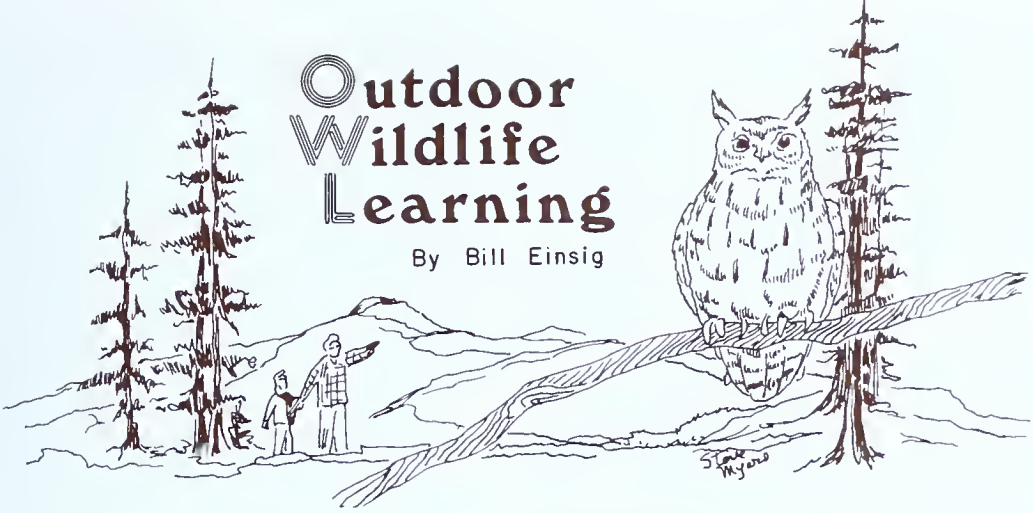
## 2nd Annual Wildlife Art Festival

The second Pennsylvania Wildlife Art Festival will be held December 13-14 in Memorial Hall of the York Fairgrounds, in York. Sponsored by Ducks Unlimited, the show will feature wildlife artists, carvers and photographers from the United States and Canada. Highlights will be the selection of the North American Songbird Carving Champion, a decoy painting contest, and a wildlife art auction. Hours are 10 a.m. to 7 p.m. on Saturday, 10 a.m. to 5 p.m. on Sunday. For more information, contact: Pennsylvania Wildlife Art Festival, P.O. Box 54, Glen Rock, PA 17327; (717) 235-6192.



# Outdoor Wildlife Learning

By Bill Einsig



## The Phantom of Fiddler Creek

*Ben was awake early the next morning and had an idea. He was going to catch the Phantom and solve the mystery! If the Phantom used his window, Ben thought, maybe the window could be part of a trap!*

*Ben got to work and by the time his mom called him for breakfast the trap was ready. His instant camera was taped to the bedpost and aimed at the small window. A string ran from the window latch, around a nail in the wall, over a rung in a chair—in fact, Ben's room looked like a spider's web!*

*When the window was opened, the string was supposed to trip the camera shutter. Ben was sure it would work. He was also sure he would be the first person to photograph a real honest-to-goodness Phantom! All he had to do now was wait.*

**B**EN AND HIS family are the stars in a new activity book that teaches youngsters about wildlife and wild resources in Pennsylvania. The family's camping trip becomes an adventure that includes lost teenagers, encounters with wild animals, and a mysterious creature of some sort that vandalizes the family cabin each time they are away. Ben's certain *The Phantom of Fiddler Creek* is the culprit, and he's about to catch the mischievous spirit on film.

The 40-page activity book includes mazes, word puzzles and other pencil activities that will keep youngsters busy. Many of the illustrations are meant to be colored, but this is no ordinary coloring book with simple line drawings.

Montgomery County artists Sal and Bernadette Pitera have teamed to produce

beautiful, true-to-life illustrations of Pennsylvania wildlife. The full-color cover includes the natural coloration of each species as a guide for students. Each plate includes marginal notes pointing to key characteristics that help to identify the species or simply note some unusual feature worth remembering.

There is also a Teacher's Manual for each set of 30 student books. The manual provides more background information on certain topics and suggests several additional activities designed to get students thinking about conservation of Pennsylvania's wild resources.

One unit describes the work being done to restore our bald eagle population. It's a natural addition to endangered species units because it localizes the topic to our own state and makes the concept real for Pennsylvania students.

Another unit in the manual focuses on endangered plants. While plants never generate the same kind of emotional involvement as do animals, our list of vulnerable plants dwarfs the listing of vulnerable animals. Students need to know that plants can be endangered too, and that many have stringent habitat requirements that make them extremely sensitive to disturbance.

The third unit in the Teacher's Manual focuses on health and safety in the outdoors. Wild resources need to be protected but they should also be properly enjoyed. Visitors to the outdoors need to have some basic understanding of the potential difficulties they could experience if they plan poorly. Poisonous plants and

poisonous snakes are discussed briefly. Becoming lost in the forest is not the likely hazard some people fear, but it can happen. The manual offers a few sensible precautions that should reassure the beginning forest explorer.

The activity book and manual were funded by the Wild Resource Conservation Fund. The WRCF receives its income from the familiar income tax checkoff and other donations. Most of the efforts supported by this fund are more technical research projects designed to gather much-needed data on non-game species. This activity book is the first major educational effort supported by the fund to teach youngsters about the need for wild resource conservation.

Teachers in grades 4 through 6 can receive free copies of the activity books and Teacher's Manual from Carl Graybill, PGC, P.O. Box 1567, Harrisburg, PA 17105-1567.

Oh, incidentally, Ben did capture the Phantom on film. But it certainly wasn't what he expected!

## Birds of Prey

Hawk watchers will want to take a close look at the Birds of Prey program offered by Cornell University. It includes two slide programs, a manual describing nearly 30 species of raptors, and an activity guide containing five lessons that help students learn about the magnificent birds.

Parts of the program can be purchased separately. Here's a brief description of each part:

*Understanding Predation and Northeastern Birds of Prey*, Information Bulletin 175, \$4. This 48-page manual could serve a high school biology class as a basic text on predation and raptor biology. It first discusses the role of predation in natural systems and then moves on to a discussion of

raptors as predators. Nearly half of the manual consists of species accounts of 27 raptors.

*Understanding Birds of Prey: A Guide to Studying Raptors*, 4-H Leader's Guide L-5-9, \$3. The five lessons included in this instructor's guide focus on the study of raptors. They include learning how to identify hawks and owls, observing raptor migrations, owl pellet analyses, kestrel nest box construction, and how to study wild populations through observation and field note-taking techniques. It's a ready-made unit for teachers of field-oriented high school biology courses.

This publication comes with a poster depicting flight silhouettes of eight raptor groups and key diagnostic clues for identifying them. Also included is a set of eight flashcards with flight silhouettes on one side and a listing of common representatives of that group on the other. For instance, the falcon flashcard lists the peregrine, merlin and kestrel as falcons that range throughout the Northeast.

Another interesting feature of this guide is the listing of hawk lookouts in twelve Northeastern states. Twenty sites are listed for Pennsylvania and most of them would be excellent field trips.

The above manuals can be ordered from Distribution Center, 7 Research Park, Cornell University, Ithaca, NY 14850.

*Understanding Northeastern Birds of Prey* is a 77-slide program depicting the most common raptors in our area. Nearly forty species of hawks and owls are shown in good closeup photographs. The narration is recorded on cassette with cues for automatic projectors; a written script is also provided for use with manual units.

The cost of the program is \$32, shipping included, and can be ordered from Audio-Visual Center, 8 Research Park, Cornell University, Ithaca, NY 14850.

## Thoughts While Walking

*A man is fortunate to hunt half as much as he plans.*

*Another reason for policing camp is that if you don't move out some of the old junk, you won't have room for new junk.*

*No mechanical device is worth owning unless it can be fixed by glaring, kicking, or cussing at it.*

—Charley Dickey



**I** STARTED gunning back in the late '60s when I was a sophomore in high school. Most of my hunting trips were after school, out-the-back-door affairs. In those days, the area in Bucks County where I lived had an abundance of farms and a plentiful supply of ringneck pheasants and cottontail rabbits. If the flights were in, you could even get good mallard shooting in the cornfields near the Delaware River.

Unfortunately, things have changed. Many of the farms I once hunted are now sprouting housing developments and condominiums instead of soybeans and corn. The master plans of developers show green belts and areas of open space, but these just help us remember what farmland used to look like. Unless you are well acquainted with a landowner, it is almost impossible to find a place to hunt in this area now.

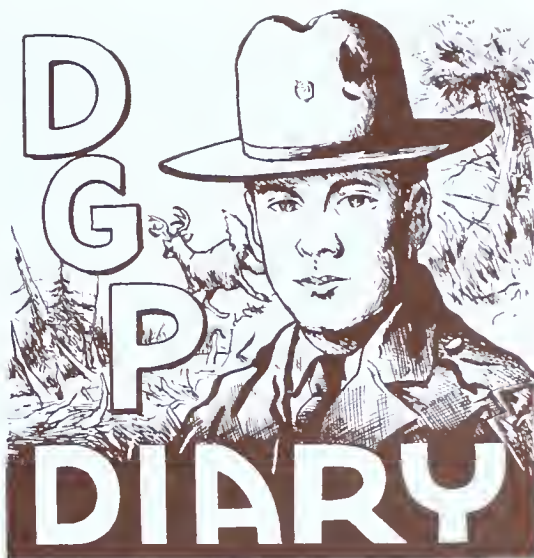
The one alternative is the land on over 29,600 farms statewide which are open to hunting under the Game Commission's Farm-Game and Safety Zone programs—some 3,800,000 acres.

In my southern Chester County district, some of the farms enrolled in these public access programs receive hunting pressure beyond belief. On the opening morning of small game season last year, there were close to twenty vehicles parked at one 100-acre farm outside of Cochranville.

Although these lands are open to public hunting, I believe hunters oftentimes fail to realize they are still privately owned. Before entering any such property, introduce yourself to the landowner and obtain his permission to gun. Be courteous, act like a gentleman, take care of the property as if it were your own, and be sure to thank the farmer for the privilege of hunting on his land. If all of us do this, we will continue to have open farmland on which to pursue our sport.

*November 1*—Today being the start of a new month, I found myself at the typewriter all morning, preparing reports and returning phone calls. In the evening, I held a deputy meeting at the State Police barracks in Avondale. With small game season opening tomorrow, our get-together served a dual purpose. First, it allowed me to make patrol assignments, and second, it gave me the opportunity to review the procedures we will follow at our game check station tomorrow afternoon.

The check station is one of my favorite law enforcement tools. It allows us to con-



**By Keith Sanford**

**District Game Protector  
Chester County**

tact a large number of sportsmen in a relatively short period, and at the same time provides us with an opportunity to detect violations that are often missed.

With the approval of Chester County District Attorney James P. MacElree and the assistance of the State Police, we have selected a heavily used section of highway and will field inspect all hunters and their vehicles traveling in a particular direction. It is important that all officers in such an operation understand what constitutes probable cause to make a lawful vehicle stop and what types of violations they should be looking for.

*November 2*—By 8 a.m. four patrol vehicles were canvassing the lower tier of the county. At 8:45, I spotted a group of gunners hunting in West Fallowfield Township. Nearby, several sportsmen remained at their vehicles, waiting for the legal opening hour. While I wrote up the violations, 9 a.m. came and went, giving those who abided by the regulations first crack at the freshly stocked cockbirds.

At 3 o'clock I met the officers assigned to work the game check station. In addition to my men, Deputies Bill Buckley, Tom Marsh and Larry Henck from northern Chester County and Clyde Tripple and Ron Shaffer from Lancaster County were on hand. During the five hours the check station was in operation, we contacted over 400 hunters and checked close to 300

pieces of game. We also uncovered eleven Game Law violations. Offenses ranged from possessing a bobwhite quail in closed season to hunting without a non-resident license. We were pleased with the results of our efforts and with the positive comments received from a number of the sportsmen we checked.

*November 4*—Spent the morning in the office completing prosecution reports, and then patrolled in the Cochranville area for small game hunters.

Deputy Cary Haupt stopped by in the evening and together we finished investigating a complaint received late last week.

While on his way home from work, a property owner outside of West Chester observed an unfamiliar truck parked near a woodlot on his farm. He recorded the vehicle's license number and when the owners emerged from the woods, he advised them they were trespassing and asked them to leave. They were not carrying guns, and he didn't think any more of the incident until he got home and his son informed him he had heard a high-power rifle shot come from that patch of woods earlier in the afternoon. To add to his suspicions, a neighbor found a gut pile from a freshly killed deer the following morning.

On our first attempt to speak with the owner of the truck, no one had been at home. Tonight, we got lucky. Our suspect admitted to being at the farm on the afternoon in question but denied having knowledge of a deer kill. He did, however, admit to shooting a buck with a bow two days later. After a lengthy discussion, he finally produced the head and hide of the white-tail. It was untagged. He admitted he was planning to hunt again during the rifle season. We examined the broadhead wounds on the hide and found nothing to indicate it might have been shot with a firearm. Not thoroughly convinced we had the true story but unable to prove otherwise, we charged our suspect with transporting an untagged deer and collected the fine on a field receipt.

*November 5*—Spent the entire day patrolling for small game hunters in Newlin, East and West Bradford, Pocopson, West-town, and Birmingham townships.

*November 6*—Retired Deputy Paul Sandoe met me first thing this morning. Together, we made our first in-season re-

lease of pheasants on Farm Game Project 45 near Cochranville. Later in the day, Deputies Harry McKinney, Horace Steffy, and Cary Haupt completed the stocking by putting out birds on lands open to hunting in the West Grove, Oxford, Nottingham, and Gum Tree areas. These ringnecks will go a long way towards supplementing our depressed native population. Spent the remainder of the afternoon patrolling.

*November 8*—This morning marked the beginning of Delaware's week-long shotgun deer season. Consequently, I spent the entire day patrolling along the state line in London Britain, New Garden, Kennett, and Pennsbury townships.

*November 9*—Met Deputy Albert Lange this morning at the PSP barracks in Avondale. Albert lives in Philadelphia and spends most of his Game Commission time working in the city. As time permits, he comes to southern Chester County to lend a much needed and appreciated hand.

After patrolling in the townships bordering the Delaware state line, we stopped at a private residence in the Avondale area to check into a spotlighting complaint. According to our caller, some individuals had been routinely driving through a nearby farm field at night and casting the rays of a spotlight on adjacent buildings. Spotting is a controversial subject in this part of the state. It is strictly forbidden throughout Delaware and is unlawful in Cecil County, Maryland, which borders my Pennsylvania district. It doesn't take many incidents like this one before the public starts demanding the activity be curtailed likewise in the Keystone State. After completing our daylight patrol, Al and I staked out the problem area, hoping to see first hand what our caller was complaining about. There was no activity the entire evening. We'll try to work the area again.

*November 11*—Headed to West Nottingham Township this morning in response to a call on a safety zone violation. Although I spent over an hour on foot combing the woods around the caller's home, I did not find a single hunter.

Later, met District Game Protector Ed Gosnell and Bob Prall, a student officer, in Lancaster County. They had responded to an early call regarding two individuals who had shot and loaded a deer near Lees



Bridge Road at the Lancaster/Chester county line. The caller provided Ed with the vehicle tag number and a description of the car. When the three of us arrived at the suspect's home, we found the vehicle, minus the license plate, but no driver. There was blood on the back bumper and a relative at the house provided us with the name of the individual who had been with our suspect the previous evening. Three hours later we caught up with and interviewed the two persons involved in the incident. They admitted to killing the animal but stated they had dumped it in Chester County within minutes after fleeing the scene. Ed charged both defendants and advised them as to how the violations could be settled.

On my way home, I received a radio call from our regional office regarding a deer poached yesterday in the Chadds Ford area. I drove to the scene and examined the carcass. The person who had reported the deer said it had been shot at dusk as it was attempting to cross a nearby road. The rifle blast came from a pickup truck but my informant was unable to get the license number. When it rains it pours—and it's not even deer season yet!

*November 12*—Picked up and disposed of three vehicle-killed deer in the Coatesville and West Chester areas, then back to West Nottingham Township where I hoped to find the deer our two poachers had dumped on Monday. It was nowhere to be found. Figuring someone had picked it up, I started knocking on doors. At my second stop I hit paydirt. The farmer indicated his nephews had found the animal early on Monday. Not wanting it to go to waste, they dragged the deer home and butchered it. The family with the venison was now out of town, so I told the farmer what procedures must be followed to get a permit to legally keep the meat.

*November 15*—This afternoon, a public drawing was held at Nottingham County Park to compile a list of hunters who would be permitted to gun on the park grounds during the statewide antlerless deer season. In years past, the area had been closed to hunting. Consequently, it became a refuge for deer during the open season. The result was a rapidly expanding whitetail herd and increased crop damage on surrounding farms.

To help alleviate the problem, the park

allows thirty sportsmen to hunt each day of antlerless season. Only shotguns with rifled slugs are permitted. The controlled hunt not only removes deer from the park but also gives hunters outside the restricted area a better chance to take an antlerless whitetail. I attended as a representative of the Game Commission and assisted Richard Sprenkle, Director of the Chester County Parks and Recreation Department, and other members of the park staff with the drawing.

*November 16*—Deputy Wayne Swinehart and I spent the morning patrolling the eastern portion of the district. While making our rounds, in a cold steady rain, we checked several parties of goose hunters. They had experienced only moderate success. Aside from a Safety Zone violation, the morning was relatively uneventful.

At 5 o'clock, I again found myself heading to the PSP barracks in Avondale, this time to issue some vehicle-killed deer permits. Just as I walked in the door, a call came in from Deputy Harry McKinney. Assisted by one of the rangers at the White Clay Creek State Park in Landenberg, he had arrested an individual hunting deer. The hunter said he thought he was in Delaware, where the whitetail season was in its final day. With several Pennsylvania State Park signs within sight of the defendant's parked vehicle, Harry didn't buy the story and charged him accordingly.

*November 19*—Our last shipment of cockbirds for the season arrived from the Eastern Game Farm this morning. With the assistance of a game farm employee, spent most of the day stocking the birds throughout the district.

Later, after disposing of a vehicle-killed deer in the Mendenhall area, drove to the State Police barracks in Avondale where I met the defendant from Saturday's deer case. He pleaded guilty to hunting deer in closed season and settled the fine on a field receipt.

*November 21 and 22*—Spent both days patrolling throughout the district for small game hunters.

*November 23*—Patrolled with Deputy Horace Steffy this morning in the vicinity of Oxford and Nottingham. At dusk, teamed up with Deputy Jim Valentino and staked out a field near Marshalton. Although we

had received numerous reports of spotlighting in this area, all was quiet tonight.

*November 26*—Game Protector Cheryl Trewella phoned this morning from Bucks County. A hunter had committed a Safety Zone violation in her district, and she was investigating. The hunting license number she'd been given, copied from the defendant's back tag, came back to an individual from Coatesville, and Cheryl asked me to pay him a visit. The matter seemed easy to resolve. However, when I located the suspect, his description and license number didn't match those I'd been given. I thanked him for his cooperation and phoned the results to Cheryl. As things turned out, the violator's license number had been incorrectly copied. By manipulating the sequence of the numbers, Cheryl eventually found and prosecuted the guilty party. Ironically, he lived only a stone's throw from where the violation occurred.

While at my desk this evening, I received a call from a trapper in the Nottingham area. While scouting ahead of the muskrat season, he found close to a dozen untagged traps set around a series of farm ponds. The traps were in front of muskrat dens, slides, and feedbeds, clearly indicating what the violator was after. With the season opener for 'rats still two days off, I contacted Deputy Horace Steffy and asked him to start an investigation.

*November 27*—Spent the entire day at a union meeting in Lamar, discussing and voting on a state contract proposal. When I arrived home, contacted Deputy Steffy to learn if he'd made any progress on our preseason trapping case. The traps were exactly where the caller had said they'd be. In addition to observing the sets, Steffy made a detailed sketch showing the location, brand, style, size, and identifying characteristics of each illegal trap. This information could be important if we have to take the case to court.

*November 28*—Today is Thanksgiving, but at 5 a.m. Deputies Horace Steffy and Jim Valentino found themselves staking out the illegal muskrat sets. By 11 o'clock rain was coming down in sheets. With no trapper in sight, the surveillance was called off. I'd have bet whoever set those traps would have been around this morning to check them.

*November 29*—Deputy Steffy and I again set up surveillance of the illegal 'rat sets. At 10 a.m. the traps still hadn't been visited, so we left for an hour to check on a lead in Oxford. When we returned, we were pleasantly surprised to see that our trapper also had. Using binoculars from our unmarked vehicle, we observed the suspect for several minutes—long enough so we had no doubt he was trapping and that the sets we had been staking out were his. When we confronted him, he admitted to setting the traps on Tuesday. However, he stated that the violation was unintentional because he'd thought that's when the season opened. We gathered up the traps, advised the defendant of the violations he had committed, and issued the appropriate citations.

Each year, be sure you read the digest of rules and regulations that comes with your hunting and furtaker's license. Seasons and bag limits are forever changing to keep pace with constantly fluctuating wildlife populations. Not only will you learn something, but you may even save yourself a few dollars.

*November 30*—With the opening of Maryland's rifle deer season today, Deputies Wayne Swinehart, Harry McKinney and Horace Steffy, along with Maryland Conservation Officer Ron Harris and myself, patrolled along the Pennsylvania/Maryland state line. Wayne and I arrested three individuals for hunting deer in closed season in Pennsylvania and missed catching a couple of others. When I met Deputy McKinney, I learned he and Maryland officer Harris had also had some success. During the course of their patrol, they apprehended a Maryland youth illegally hunting deer in Pennsylvania. As he wasn't in possession of any form of hunting license and was unable to provide the officers with identification, they escorted him home where he produced a Pennsylvania resident back tag. The license had been purchased for him by his father, who was also a Maryland resident and who also had a resident Pennsylvania hunting license. McKinney confiscated the illegal back tags and made the appropriate charges.

After finishing our patrol at dark, I headed home. I spent the next three hours on the phone and at my desk, preparing reports. I was done in time to grab a few hours' sleep before heading out on night patrol.



THE OLD MILL stands empty. Its cut-stone corners and square-hewn beams remain sound but there are holes in the roof, and long ago boys broke out the windows with stones. Inside, the light is dim even at noon. Tonight—moonless, the sky covered with cloud—it is nearly black.

A barn owl perches on a beam. She stretches one wing, then the other, and begins to dress her pinions, drawing them one by one through the serrations of a claw. There is a sudden rustling on the floor—with a rapid flick, the owl's head swivels to face the sound. The rustling comes again. The owl launches herself from the beam and descends into the gloom.

An instant before impact, the owl's feet swing forward, her head pulls back, and her eyes shut. Needle-sharp talons bracket the target, pierce and clench. A faint thrashing plays itself out. The owl takes wing and carries the mouse back up to the beam, where she eats it, bolting the carcass whole. She folds her wings, settles, waits.

Barn owls are found throughout the tropical and temperate regions of the world. They nest in barns, belfries, warehouses, granaries, structures derelict and in disrepair; also in hollow trees, and crevices in rocks and earthen banks. Studies of barn owls' pellets—indigestible remains of prey coughed up by the birds—show that they kill and eat mice, voles, and rats almost exclusively. Barn owls hunt in the buildings where they roost; more often, however, they fly to nearby fields, where they sit and watch from fence posts or flap along a few feet above the ground.

The common barn owl, *Tyto alba*, is the most numerous species and the one found in North America. It stands a foot to 18 inches high and its plumage is a subtle blend of tan and cinnamon and white. Its legs are long, its wings broad; each foot has four toes, and each toe is tipped with a needle-sharp talon. Perhaps the most striking aspect of a barn owl's appearance is its face,



Chuck Fergus

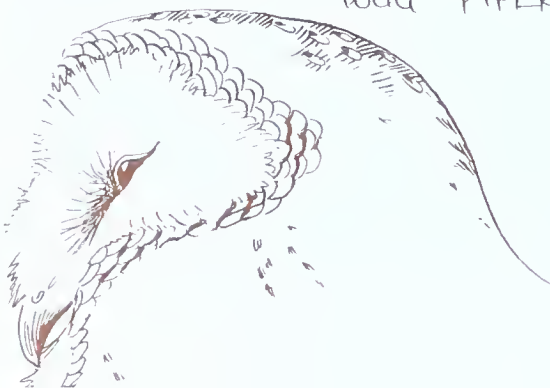
an expanse of milky-white feathers that has earned it the name “monkey-faced owl.” When the owl dozes, the ruff relaxes and the face assumes the shape of a heart. When the owl is alert, the feathers fluff up, making the face look hugely round.

An arsenal of adaptations make the barn owl—indeed, all owls—efficient nighttime hunters. Owl eyes are located in the front of the skull for binocular vision, an aid in determining distance. The large eyes are packed with light-gathering cells: one owl species can strike a target in light equal to that of a candle burning 2500 feet away. Owls' wings have wispy leading edges that deaden the noise of air rushing over them, for near-silent flight. Owls have superlative hearing, and the barn owl, science has recently discovered, probably has the best hearing of all.

In 1926, a young man named Lewis Wayne Walker spent 96 consecutive nights sitting in the belfry of a church at Flushing, Long Island, watching a pair of barn owls bringing in prey. From the time the pair laid their first egg until the last owlet left the nest, the adults brought in and consumed themselves, or fed to their young, 758 field mice, house mice, and Norway rats. The largest single night's catch was 27 rodents; the smallest take, one rat. Musing over his statistics, Walker no-



—DOUG PIFER



ticed a strange pattern: the owls would catch more and more prey each successive night until one night their hunting success would plummet to near zero. Then their nightly catch would slowly increase, only to fall—suddenly—again.

Walker checked the weather reports for his study period and at once saw a connection. As he later wrote in *The Book of Owls*, "During days of relative dryness and lowering humidity, the catches climbed, but even a meager rain would send them crashing." The hidden factor, Walker decided, was sound. When it was wet, the barn owls could not hear their prey skittering across the leaves or through the grass. As the footing dried up, becoming noisier, the owls could find the rodents again.

In the 1940s, the scientist L. R. Dice showed that several species of owls, the barn owl included, cannot see well enough to distinguish mice moving through the leaf litter of a heavily shaded forest floor on a cloudy, moonless night. In many regions such conditions are common, sometimes lasting many nights in a row. Most scientists presumed that the owls heard their prey and then somehow caught it, but not until the 1960s was this theory proven correct.

### On First Try

Roger Payne, a biologist, set up an experiment at Cornell's Laboratory of Ornithology. He built a light-tight building with a perch at either end, spread dry leaves on the floor, set a hungry owl on the perch, turned out the lights, and put in a mouse. Time and again, in total darkness, the owl would strike at the mouse and catch it on the first try. Payne, of course, had suspected that acute hearing stood behind the barn owl's amazing ability. To rule out other possibilities, he tied a mouse-sized wad of paper to a thread, threw it in the leaves, and dragged it across the floor. The owl swooped down and grabbed it. Because the paper gave off no heat, the owl had not



used infrared sensitivity to find it, Payne reasoned. Because the paper had no mouse-like odor, the bird hadn't smelled it. Echolocation—the radar-like capability employed by night-hunting bats—had already been ruled out when another scientist showed that barn owls possess no such weapon.

“The barn owl need only hear the sound of a mouse rustling in leaves in order to locate and strike the animal,” Payne wrote. “This experiment, done many hundreds of times during a period of four years, showed that a barn owl is capable of locating and striking a mouse in total darkness with an accuracy of at least one degree in both the vertical and horizontal planes.”

The “vertical plane” Payne referred to is up-and-down accuracy: an owl, which hunts from above—from a perch, or while flying—must determine its angle of elevation above its prey, or it will overshoot or undershoot when it strikes. The “horizontal plane” is side-to-side accuracy: what a fox must achieve when pouncing on a mouse, both of them already being at the same level, on the ground. Payne's owls struck in both dimensions with an accuracy better than one degree: one degree is approximately the width of your little finger held at arm's length. Until Payne tested the barn owl, man had been thought to be the animal with the greatest ability to locate a sound. The barn owl is about as accurate as a human in the horizontal plane, three times as accurate in the vertical.

Payne also learned that the sounds a barn owl can locate most accurately are high-pitched ones: the squeaking of voles, the gnawing of mice, the rustling of rats. With an infrared camera he filmed an owl striking at prey. So accurate was its hearing—and so quick its reflexes—that the bird could tell which direction a mouse was running, and intercept it. In flight, a split-second before impact, the owl would turn its feet to match the body axis of the mouse, boosting the chance that at least one

talon would sink home; it would also shut its eyes, probably to protect them from possible struggles of the prey.

How, scientists wondered, does the barn owl strike so unerringly? The answer lies in the structure of its ears, its face, and its brain.

While the skull of a barn owl is rather narrow and small, its face—that distinctive feathered expanse—is large and round. The facial feathers are short and stiff, packed densely into a ruff. All owls have facial ruffs, but the barn owl's is the most sophisticated. The ruff reflects sounds (especially high-pitched sounds) into two troughs, one on each side of the barn owl's face, running from the forehead to the lower jaw; the troughs, in turn, funnel the sounds into the ear canals. “Like a hand cupped behind the ear,” writes Eric Knudsen, a Stanford scientist, “the troughs of the ruff amplify the sound and make the ear more sensitive to sounds from certain directions.”

### Automatic Response

When a barn owl hears a sound, it turns its head in a quick flick to point its face directly at the source. Knudsen designed a series of experiments to take advantage of this natural, automatic response. He mounted a lightweight magnetic coil on top of a barn owl's head—the coil was about the size and shape of a wedding band—and placed the owl on a perch in a blacked-out, echo-free room. The perch faced a fixed speaker, the so-called zeroing speaker. During a trial, the zeroing speaker would make a sound and the owl would flick its face toward it. Then a movable “target speaker” would make a second sound, causing the bird to turn its head again. A receiver picked up the magnetic signal from the coil on the owl's head, and a computer recorded its alignment.

Knudsen found that a barn owl locates a sound by comparing subtle differences between what arrives in its left ear, and in its right.

First, a difference exists in time of arrival: inevitably, the sound hits one



makes the right ear more sensitive to a sound coming from above, while the left ear is keener to one from below. Depending on its elevation, a sound will seem louder in one ear than in the other. With its ruff shaved off, an owl can't identify the elevation of a sound.

The head-orientation trials were preliminary work. Knudsen, a neurobiologist, really wanted to learn how an owl's brain organizes and interprets the information it receives from the ears. He discovered that much of the information is processed in brain centers quite close to the ears themselves. From these preliminary sites, nerve impulses travel to a network of neurons in the midbrain. Each neuron is excited only by the sound from one small area of space: the barn owl's brain draws a quick two-dimensional map of space, with the sound source located on it. This message flashes to the higher centers of the brain.

### Homes In

ear a fraction of a second before it hits the other. This time delay gives information on the horizontal plane. Second, the ear closer to the sound hears it somewhat louder—another clue for locating on the horizontal.

The barn owl, it turns out, has asymmetrical ears. The right ear opens lower on the skull, and its trough tilts up; the left ear opens higher, and its trough tilts down. This arrangement

The barn owl consults the nerve-generated map. It dives off its perch and homes in on a sound that it can "see" quite clearly, even in the blackest night. As the owl approaches its target, often the picture may change: the rustling darts off to the left or to the right. The owl reacts and quickly adjusts its course. It lines up its talons with the fleeing sound, shuts its eyes, and strikes.

## Books in Brief...

(Order from publisher, not from Game Commission)

**Shooter's Bible**, edited by William S. Jarrett, Stoeger Publishing Co., 55 Ruta Court, South Hackensack, NJ 07606, 576 pp., \$13.95. The traditional and extensive catalog of guns and shooting equipment is here—well illustrated—and as in recent years, so is a collection of interesting articles. Included are Don Lewis's "The Arc of Flight," which discusses the bullet's path in terms the average shooter can understand; Stan Trzoniec's ideas on "Breaking in a New Rifle"; pieces by Geoffrey Hoyle and Jim Cobb on Beretta guns and Dan Lefever's shotguns, and Clair Rees on getting into good physical shape for hunting. There's even an article on the background of the PPC benchrest cartridges. Written by Dr. Louis Palmisano, who with Ferris Pindell developed the 22 and 6mm PPC loads (thus the name, deriving from Palmisano Pindell Cartridge, it gives interesting information on these outstanding cartridges. There's lots more in this, the 78th, *Shooter's Bible*.



# Bow Hunting for Bears

By Keith C. Schuyler

**W**ITH THREE consecutive days for bear hunting in Pennsylvania this November, serious archery nimrods might consider it a special opportunity to take a bruin with the bow. There is no question that you will be bucking the odds. But it has been done; it will be done again.

Before confronting this special hunting challenge, there are advantages and disadvantages to be considered. True, disadvantages far outweigh the advantages. As one who has been in on three bear kills with the bow outside this state, of which one was a personal success, in addition to close association with others who have succeeded, enough has been learned to answer some obvious questions.

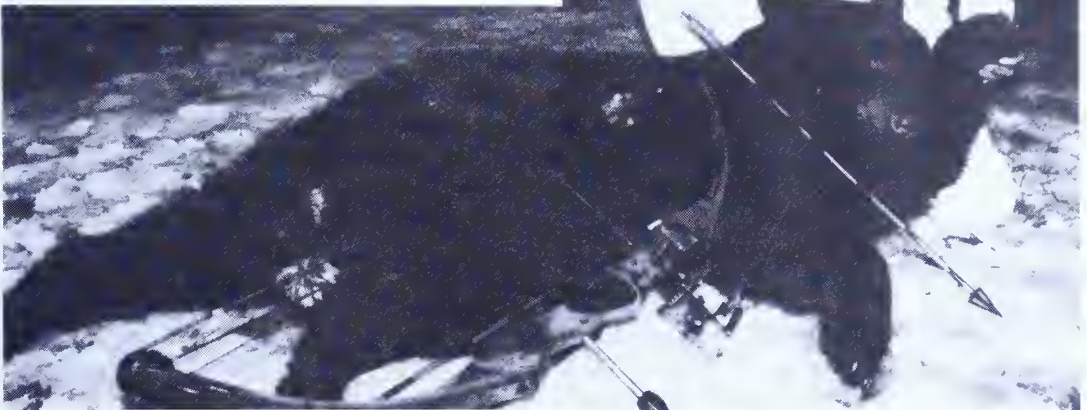
What are your chances? Is a bow a proper arm with which to hunt for this state's biggest native game animal? How far is a bear likely to go after being struck by an arrow? Since all legal arms for big game may be employed during the bear season, what is your chance compared with a gun-

ner's? Is the necessity to wear 100 inches of fluorescent orange a deterrent in getting close enough to a bear for a shot? Is it dangerous to take on with a bow an animal that might fight back?

Before getting into the answers, let's review the experience of Michael Lamade, who took a big black bear with the bow in 1985. Mike, who lives near Galilee in Wayne County, usually does his bear hunting in Pike County. But while scouting for deer, he had seen tracks and fresh signs where a bear had devastated part of a neighbor's cornfield only a half-mile from his home. He made his plans for that bear on the first day of the season, November 25.

Mike was about twelve feet up in his portable stand when the blackie came along the edge of the field at 4:20 in the afternoon. His bow drove the arrow through the animal's heart, and the

**MIKE LAMADE is one of very few archers who have taken bears in Pennsylvania. Mike got his trophy, which field-dressed at 264 lbs., in Wayne County last season.**



**SOMETIMES called the "clown of the woods," a black bear commands respect at all times. Dangerous confrontations are rare, but care should always be taken around wild animals.**



bear dropped dead within 40 yards. It was a boar that weighed in field-dressed at 264 pounds. Further, the skull measured nearly 19 inches by Pope and Young scoring, to place Mike's bear well in the record book. He shot a 60-pound PSE Mach I bow with a 2216 Camo Hunter shaft behind a Snuffer broadhead. Mike uses an Altier sight on his bow.

Two other legal bow-killed bears taken many years ago were reported here (September, 1973). Authority for one was a picture of a 350-pound animal taken by Arthur Franz in the Pocono Mountains with a 60-pound osage orange longbow. It appeared in a 1939 copy of L. E. Stemmler's catalog. The other was a 204-pound black bear shot by Lester H. Newell, Sharon,

which was fully documented. That bear was taken with a homemade 60-pound osage orange bow on November 29, 1944, when Mr. Newell was 43 years of age. If there are other legal kills with the bow in Pennsylvania, this column would like to be informed about them.

But, back to the questions about what a bow hunter might be up against if he goes bear hunting during the season scheduled for November 24-26. First, what are the chances of killing and recovering a black bear with the bow?

Last year, 1,029 bears were taken in Pennsylvania by hunters. In 1984, 1,547 were shot; in 1983, the score was 1,529. This adds up to 4,105 bears. The average annual kill was 1,368. Based on these figures and an issue of 100,000 bear licenses, the success rate was just under 1.4 percent. This may not seem encouraging to archers, but the reported kill ratio for the bow in the special archery deer season, without competition from the guns, is usually not a great deal higher. Of course, statistics ignore individual knowledge of where bears might be found, woodsmanship, expertise with the bow — and luck.

### **Kill Compares Favorably**

This state's total bear kill compares most favorably with that of other states and Canadian provinces. It stacks up even better when it is considered that here no bears may be shot over bait and the use of dogs is not permitted, factors which favor statistics in areas where such assists are legal.

Is the bow a proper arm for bears?

We know that historically the bow has been effective on all big game up to and including elephants. The greatly increased effectiveness of today's bows and arrows and the greater skills devel-



oped by modern archers remove any doubts about whether the bow is a proper arm in the hands of a serious bow hunter.

How far is a bear likely to go after being properly struck by an arrow?

Each shot is an individual happening, and no one can predetermine how far any animal will go, even with a fatal hit. This is true regardless of the arm or projectile used. However, since an arrow usually kills by hemorrhage, it is expected that the bear will travel an unknown distance before expiring. In the three kills in which I was the hunter or a close observer, none of the animals traveled more than 40 yards. Two were heart shots, and my bear was struck in the neck.

### Recovery Rate

Harold Schmidt, outfitter near Patton, Maine, has had literally hundreds of bears killed by bow hunters and gunners under his guidance. He claims that, of bears which had to be hunted down after being shot, the recovery rate was better on those hit by an arrow. Nevertheless, bears are tough, and they seldom drop in their tracks regardless of the projectile used.

One story is told of a bear that escaped after being shot with an arrow. It was too late in the evening to go into the bush after it, and the hunters came back in the morning to look for the animal. They found it dead on the bait where it had been shot. Apparently the animal, unaware that it was hurt, came back to the bait again during the night and succumbed to its wound at the same spot.

What is the chance of an archer compared to a gunner?

This question is partly answered in the preceding paragraphs. As a well-



**HUNTING** near sign such as this fresh bear print is one way to increase odds of getting a shot with a bow—but bears sometimes travel long distances in a short time.

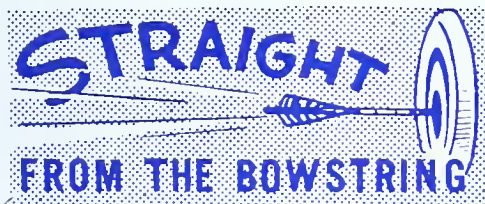
hit animal is unlikely to travel far after being shot, the chance of it running into a gun hunter before dropping is minimal. With a maximum of 99,999 other licensed hunters in the woods, this is some 90 percent fewer than in the firearms deer season. Foliage is greatly reduced by the last week in November, and visibility is such that a bear approaching within bow range is probably not within gun range or visibility of another hunter or he would be firing at it.

Is the requirement for fluorescent orange a deterrent in getting a shot?

Quite unlikely. In the first place, bears have notoriously poor eyesight. Personal experience in wearing bright red camouflage over the years has convinced me that color has little if any effect on animals if it is dispersed properly. While fluorescent orange may be more noticeable, and is a color not found naturally in the woods, in my opinion it can be discounted completely in the amount legally required.

Is a bear a dangerous quarry for a hunter armed with a bow that is unlikely to stop a determined charge?

So far, the record is good. Although I had a large blackie challenge me on a Quebec bear hunt some years ago, I have always believed that animal



thought I was another bear. Most "charges" you hear about are confrontations between a hunter and a bear that is seeking the closest escape route. This is not to discount the potential danger in hunting black bears with a bow. It is said that more people have been killed by black bears than any other. Whether this is because there are more of them, we can't say. The fact that they can and do kill people demands proper respect for an animal

that can make the hunter the hunted.

The most obvious challenge in hunting bears with the bow is simply to get within range of one. A few years ago a young blackie came within 15 yards of me in Tioga County when I was carrying a bow. It presented a perfect shot before its nose dropped to sniff my half-hour old trail. It then bolted as though I had indeed shot at it.

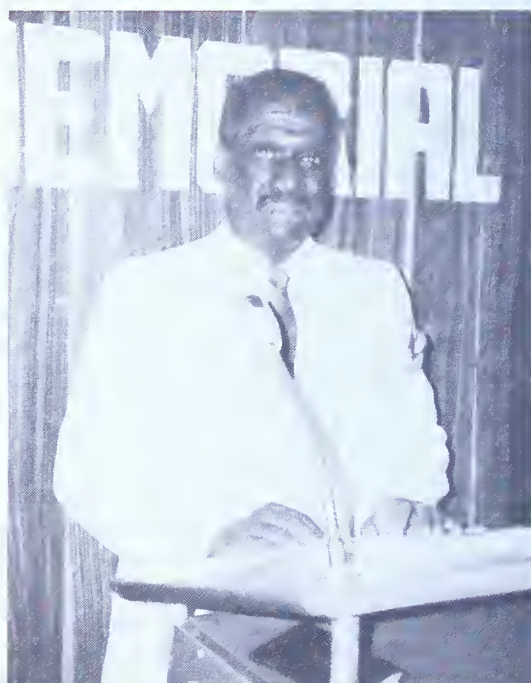
Fortunately for the bear, it was deer season.

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## Clubs Honor Deceased Members

By Wes Bower

IES, Southcentral Region



**M**ANY GROUPS honor individuals who have contributed to the success of their organizations' activities. Recently, two Pennsylvania sportsmen's clubs decided it would be appropriate to create a Hall of Fame to show their regard for deceased members who over a period of years had honorably participated in the sport of hunting. That objective has now been carried out. In April, the Norristown Hunters Club and the Mount Union Hunting Club held a memorial banquet to recognize twenty-one deceased members. About 300 persons, including the families of many of the honored members, were on hand for the recognition ceremony, which was held in Mount Union. Shown above, left, are Mount Union club officers R. L. Helton, Jr., Nathaniel Trice, Jr., and Allen Rogers. Right, Norristown vice president and master of ceremonies, Charles James, Jr. The two clubs plan to hold such a banquet annually.



# 150 Years of Colt

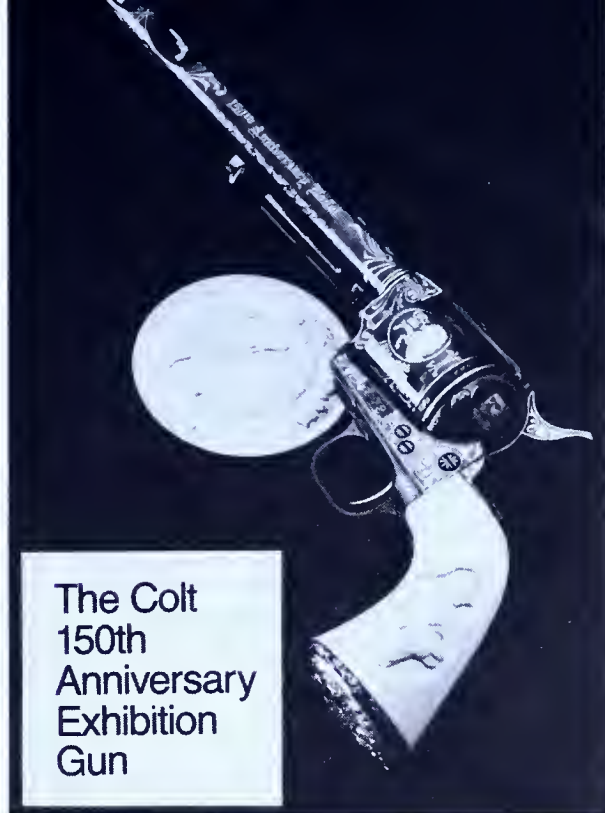
By Don Lewis

**T**HE YEAR 1836 does not hold a significant place in American history. Major events such as the California gold rush, the Seminole Uprising, and the Civil War would be recorded as milestones in history, but these were to come. It was a relatively quiet time.

During the early part of that year, a young gun enthusiast, Samuel Colt, applied for a patent for a repeating firearm. For the U.S. Patent Office, it was just more paperwork, but its impact on a fledgling nation and the world would be marked by historians as an epoch. To get a clearer view, let's step back to the years 1830-31, when Colt was a young seaman.

I have no way of knowing how Samuel Colt conceived the idea for a revolving firearm. Firearms tradition says the 16-year-old sailor carved a prototype from wood while at sea. When he returned home, he shared his ideas with his father and several friends. To protect his invention until it could be perfected, Colt filed a caveat (a formal warning to others that he intended to patent) with the U.S. Patent Office.

The firearms built during the 1832-36 period were far from flawless. In fact, the first repeating handgun came apart when fired. His 1832 repeating rifle showed promise, and Colt relentlessly pursued his goal for a factory. Apparently, he convinced a number of



The Colt  
150th  
Anniversary  
Exhibition  
Gun

**THE SINGLE ACTION ARMY** is probably the most legendary Colt, which doubtless explains its choice as the exhibition gun for the company's 150th anniversary.

wealthy investors, and in 1836 Colt's firm, known as the Patent Arms Manufacturing Company, came into existence in Paterson, New Jersey.

Colt's prototype was a revolving handgun, but in the early days much of the production centered on the so-called Ring Lever Revolving Rifle, available in calibers 34, 36, 38, 40 and 44. It had a 32-inch barrel and an 8-shot cylinder. Despite everything that the Colt enterprise had going for it, bankruptcy was declared in 1841 and by 1843, from all appearances, Colt was out of business.

Then in 1846 came the Mexican War, and urged by an Army captain, Samuel Walker, Colt went back into the gun business. The end result was the famous Walker Colt.

Let's look a little further back. Fortune began to smile on Samuel Colt when his revolvers found their way to the West. His compact sidearm was

ideal for men on horseback, and it was the perfect weapon in a running fight with Indians or desperadoes. Maybe the people in quiet regions of the East didn't appreciate Colt's efforts, but Captain Samuel H. Walker sure did. He had been with Captain Jack Hayes and a dozen Texas Rangers armed with Colt Paterson revolvers in a fierce fight with a large band of Comanches. They soundly defeated the Indians, reportedly killing more than thirty. Walker was more than impressed with the Colt Paterson.

### Mexican War

When the Mexican War hit the scene, Walker convinced Colt to go back into business. Walker gave Colt more than a psychological boost; he helped redesign the Colt Paterson to make it stronger and more powerful. In 1847, the United States became the first nation in the world to issue revolvers to its troops.

The nation was in a period of unrest and turbulence—years propitious for Colt. Business was never better. The Mexican War was immediately followed by the California gold rush. Next would come the vast migrations westward. The land on the other side of the mighty Mississippi was wide open to the adventurer, but it was dangerous. Here again, the Colt sidearm rose to the need. Overseas, the Crimean War in Europe created a strong

demand for revolvers. With all the success Colt was having, it didn't take long for imitators to get into the act. Colt was tenacious in guarding his patents.

There's no question that the Colt revolver played a major role in a succession of conflicts and wars during the past century. It began with the Mexican War, continued to the Seminole War, Civil War, Indian Wars, and ended with the Spanish American War. The Civil War probably had the most tragic impact on our nation, and the Model 1860 Colt 44 caliber was on center stage at the time.

The M1860 was a single-action revolver that had to be thumb-cocked before each firing. When the arm was cocked, a notch in the hammer nose acted as a rear sight. While it was supposedly new in design, many Colt fanciers believe it was just a modification of the Colt 1851 Navy model.

The caliber was increased from 36 to 44, along with enlarging the loading cut-out. The trigger guard was also increased in size. It carried an 8-inch barrel with seven grooves and a right-hand twist. Surprisingly, even at a length of 14 inches, the Model 1860 weighed in at just under 3 pounds. The famous Walker Colt ran close to the 5-pound mark.

Colt's first military order was for a mere 500 guns, but by the end of 1863, nearly 130,000 Colts were in military hands. Colt could even supply a shoul-



Colt Patent Firearms Mfg. Co. circa 1850's



der-type stock which, when attached, actually made the handgun a pistol-carbine. The stock was a great advantage for long range shooting.

Colt did not live to see the impact his revolvers played in the War Between the States and the following conflicts; he died in 1862 at age 47.

I mentioned earlier that Colt was not alone in the handgun-making business; he had serious competitors. One serious rival was a double action handgun patented by Robert Adams in England. The double action was considered a great improvement over a hand-cocked firearm. Adams' entry was built on a solid frame and offered in calibers up to 50. Colt might have lost out entirely to the new concept, but was probably saved by the fact that his handguns were mass produced and had the advantage of interchangeable parts. Remington also entered the fray with an excellent solid frame revolver. It might have had an edge on the Colt, but it didn't cut too deeply into Colt's sales.

### Percussions Discontinued

Around 1873, Colt discontinued the manufacture of percussions revolvers. Metallic cartridge guns had been making inroads on the percussion firearm. Colt, with all his ingenuity, apparently had refused to see the overall potential of the self-contained metallic cartridge. This type of cartridge didn't appear overnight; the idea had been experimented with years before Colt stopped manufacturing percussion handguns. In fact, the Volcanic repeating rifle was on the market in 1852.

Horace Smith and D. B. Wesson had been associated with the Volcanic rifle. In 1856, they started their own business, concentrating on metallic cartridge revolvers. These had bored-through cylinders, based on the Rollin White patent. Little did anyone realize this move was the beginning of Smith & Wesson.

The Colt firm faced a real dilemma. Thousands of S&W cartridge revolvers were flooding the market, and Colt



*Sam. Colt*

**SAMUEL COLT died young—at age 47—but there's no doubt of the importance his handguns have had on the shooting world for a century and a half.**

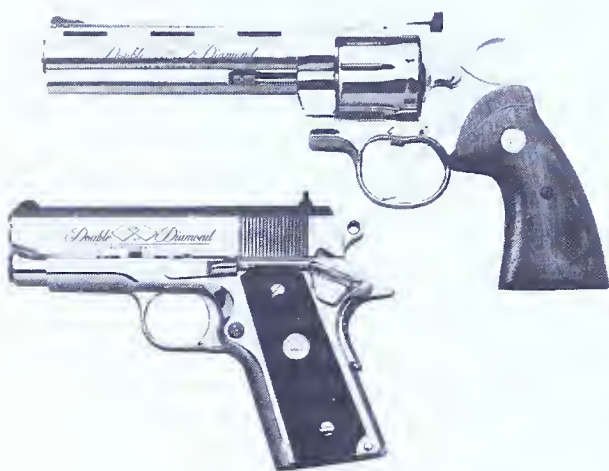
could do nothing about it. After his death, his successors tried to circumvent S&W patents by slightly changing the designs, but it didn't work. They had to wait for the patent rights to expire.

Sam Colt was not a fancier of the double action revolver. He felt using it took too much effort to get off a shot while holding a steady aim, and accuracy would be difficult. For the most part, he was right in this thinking, but the double action's psychological impact on the public, plus being able to fire at a much faster rate, forced the Colt firm to alter its thinking. In 1877, Colt offered its double action, the Lightning Model.

Now it's time to turn to more modern creations such as the legendary Colt Woodsman 22. From 1915 to the mid 1970s, Colt produced some 650,000 Woodsman pistols under such names as Sport Model, Challenger, Target Model and Match Target. The Woodsman was tremendously popular.



The Walker Colt



THE WALKER COLT, top, was a big, heavy, powerful handgun that served well during the early dangerous days in our Southwest. It came into existence at the urging of Capt. Sam Walker, who knew what was needed. More modern are the Double Diamond versions of the famed Colt Python 357 Magnum, center, and a compact M1911 45 ACP.

Some of its admirers still claim the only automatic pistol comparable to a Colt Woodsman is another Woodsman.

Another Colt automatic of even greater fame is the Government Model 1911 45. Millions of this model have been built by various manufacturers, and there's no doubt it has been the most important military sidearm ever developed. It's powerful, dependable and accurate. Though recently replaced in our government's thinking, it will always have a special place in the minds of serious handgunners.

In 1955, Colt introduced the Python. At that time, magnum handgun cartridges were almost unheard of in

the public realm. Big bores such as the 41 and 44 Mags were just sketches on the drawing board. However, the 357 Magnum, introduced in 1935, was considered a very powerful handgun load. Colt decided to come out with the Python in the 357. It was a move in the right direction. Many believe the Python was—and thirty-one years later still is—the standard in 357 Magnum handguns.

### Along Python Lines

When I unpacked a Colt Diamondback 22, it immediately made me think of the Python, as it does run along Python lines. It features a ventilated rib, which dissipates barrel heat, reduces mirage and gives the preferred flat sighting plane. The wide cut spur target hammer assures non-slip cocking. It also incorporates a shroud to protect the ejector rod and minimize barrel jump. The trigger is grooved and the front sight is a ramp-type. The rear sight is fully adjustable.

You may wonder why I selected the 22-caliber Diamondback with a 6-inch barrel for testing for this Colt article. Personally, I like to think of "family-type" shooting. No other cartridge fits into this scheme of things as well as the 22 long rifle shell. The larger calibers may better meet the requirements of hunters, competition shooters and security personnel, but family fun requires a low-recoil cartridge. Also, the 6-inch barrel gives the inexperienced handgunner a longer sighting plane, making it easier to learn aiming fundamentals. Young and old alike can get into the act.

I lost little time in checking out the new Diamondback. After a pre-testing inspection and cleanup, our son Tim,





Helen and I fired a box of 50 in a matter of minutes. All of us liked the heft and feel of the Diamondback. I especially appreciated the barrel-forward heavy feel. It added a degree of steadiness in aiming.

Later, I checked out the physical characteristics of the Colt. In single action mode, trigger pull read out to just 52 ounces. The swing-out cylinder had minimum play in the locked position, and I couldn't detect any blow-by between cylinder and barrel. Undoubtedly, there has to be some, but nothing like I have experienced with numerous other handguns. The stock is checkered walnut, target type with square butt.

I haven't gone through a lot of ammo with the Diamondback, but every-

thing so far is in its favor. It's far more accurate than I am, and there's no question about its workmanship and high quality materials. It's far from the least expensive 22 handgun on the market, but there's a lifetime of good shooting in it.

I have merely touched on the impressive career of Samuel Colt and his handguns. Scores of models in many variations were produced over the past 150 years. I mentioned that 1836 was not a year of startling events in the 19th century. But when the first patent was issued to Samuel Colt on February 25 of that year, the crude prototype carved from wood altered the destiny of mankind when transformed into metal. That's exactly what the Colt revolver did.

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## Days of Yore



**PENNSYLVANIA'S ORGANIZED SPORTSMEN** have been in the forefront of the conservation movement for many years, as indicated in this photograph from Joan Hunyady, of Altoona. Members of a Blair County club are shown stocking white-tailed deer obtained from Michigan. The photo was taken in 1916 near Bell's Gap, an area now part of State Game Lands 108. Mrs. Hunyady's father, Joseph Kabella, Jr., was an active sportsman during this era and a prime mover in raising funds and making the necessary arrangements to bring these deer from the Michigan peninsula.

# *In the wind*

bob mitchell



210 male Kirtland's warblers were found in northern Michigan this year. Although this is down slightly from last year's count, 216, the difference is insignificant. For the past decade about 400 pairs have returned from wintering areas in the Bahamas to nest in plantations of young jackpines. Specialists working with the endangered species are optimistic because nesting habitat for the Kirtland's has increased from 5000 acres in 1971 to over 18,000 in 1985.

**According to a U.S. Fish and Wildlife Service plan, the use of lead shot for waterfowl hunting will be prohibited throughout the country by 1991. The ban, which is to be phased in, has wide support from state wildlife agencies, national conservation groups, and shotshell manufacturers.**

Bear harvests in Alaska were higher in 1985 than in any year since 1961, when the Department of Fish and Game began monitoring them. The brown/grizzly bear harvest was 1145, and the black bear harvest was 1635.

**Ducks Unlimited raised \$1,172,340 in Pennsylvania last year, and this state led all others in the number of new members joining the conservation group. Currently, 13,517 Pennsylvanians belong to DU. Roughly 70 percent of the monies raised by DU are used to preserve waterfowl nesting habitat in Canada. Much of the remainder is used for projects in the states where the funds were generated, on a matching-fund basis with state wildlife agencies.**

Despite the fact that the Atlantic flyway is home to more Canada geese than ever before (800,000), the number wintering in North Carolina has dropped from 162,000 to 23,000 over the past 22 years. Biologists there feel more geese are wintering farther north because of today's agricultural practices, and that higher numbers are being taken by waterfowlers before they make it that far south.

In addition to the 17 peregrine falcons released at two remote hack sites in the Adirondacks in 1986, four were raised and released in downtown Albany. These bring to 148 the total number released in New York since 1974. This year also found five pairs nesting in the state, including two that nested on bridges leading into New York City.

According to the Wildlife Management Institute, the American alligator has responded so well to the protection and management efforts it received as an endangered species that the U.S. Fish and Wildlife Service now considers it "biologically secure throughout its range in the Southeast. As a result, it's been proposed to reclassify the alligator to a less restrictive category in Alabama, Arkansas, Georgia, Mississippi, North and South Carolina and Oklahoma. It had been reclassified previously in Louisiana, Texas and Florida.

The U.S. Fish and Wildlife Service reports hunting license sales for the country dropped to 15,879,572 in 1985, down from the 16,018,250 sold in 1984. Revenue from hunting license sales rose, however, to \$300,766,158, an increase of \$8,421,884 over 1984 total sales. Pennsylvania ranked first in the number of paid hunting license holders with 1,222,108. Following were Texas, 1,100,550; Michigan, 900,266; and New York, 803,112. States with the fewest licensed hunters were Hawaii, 11,425; Rhode Island, 13,310; and Delaware, 27,997.

**A mountain lion tagged in March, 1981, near the Colorado-Utah border, was taken in February of this year, 162 air miles away, by a hunter in New Mexico. The distance traveled is the third longest on record for the species, and the cat will rank about 60th in Boone & Crockett records.**





*The Wingless Crow*, by Chuck Fergus, is a collection of thirty-three Thornapples columns which have appeared in GAME NEWS. The nearly 200 pages of entertaining reading will appeal to Fergus fans as they reread these selected essays as well as to those who've yet to discover the joys of Thornapples. This top quality hardcover book costs \$10, delivered, and can be ordered from the Pennsylvania Game Commission, Dept AR, P.O. Box 1567, Harrisburg, PA 17105-1567.



Shown here is the fifth in the Game Commission's annual series of embroidered patches and decals offered through the Working Together for Wildlife program. Funds derived from the sale of these and other selected items are used specifically for nongame research and management projects. Bald eagles, otters, ospreys and eastern bluebirds are just a few of the animals being helped in Pennsylvania, thanks to the people who've been supporting this program. This year's patch is priced at \$3, and the decal at \$1, delivered. Make check or money order payable to: PENNSYLVANIA GAME COMMISSION, Dept. AR, P.O. Box 1567 Harrisburg, PA 17105-1567.



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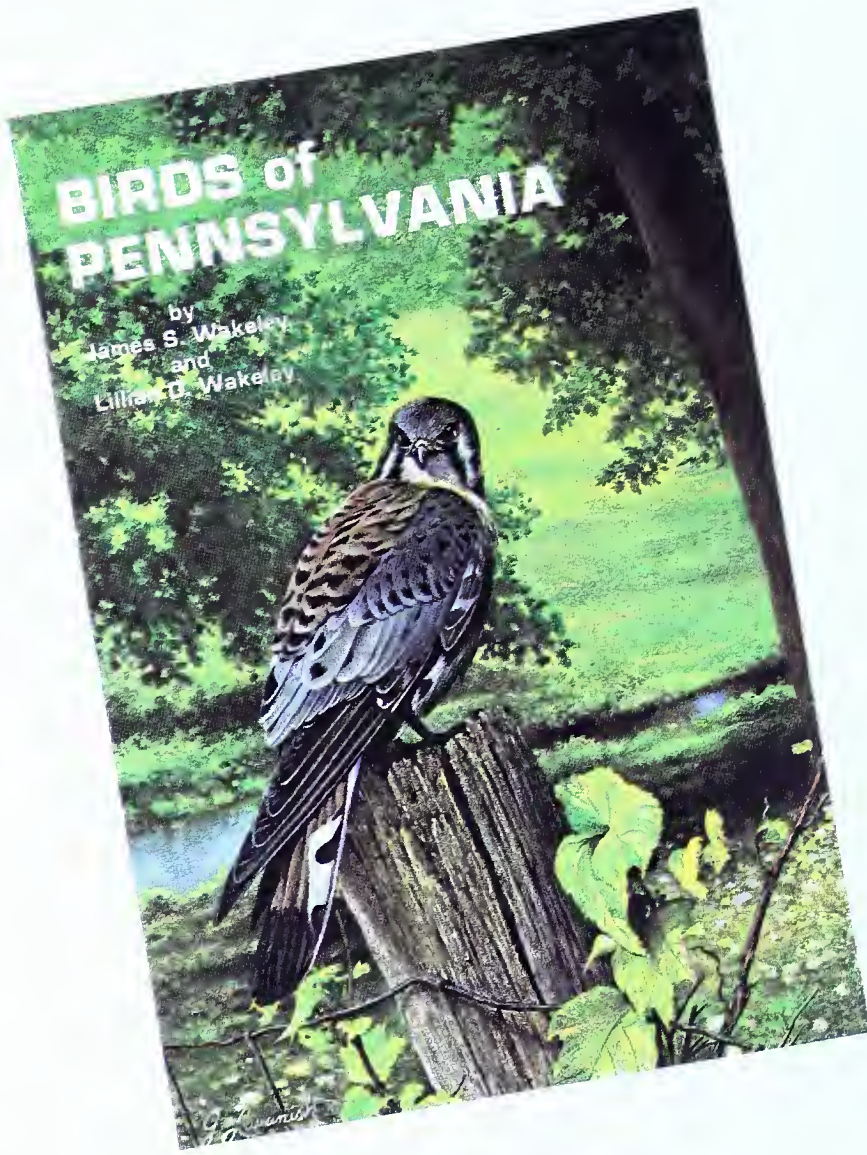
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## 1986 — A Banner Year

**1986** has been a good year for the Game Commission. Several important milestones will enable the agency to do a better and more efficient job managing our wildlife resources, while others reflect the continued success of programs started years ago.

Perhaps most significant was the signing of the new Game and Wildlife Code. This law, which becomes effective July 1, 1987, will replace the 50-year-old Game Law and provide the legal muscle needed to protect our natural resources from today's pressures. Increased penalties, for example, more accurately reflect the severity of wildlife-related crimes. The new law also enables the agency to further protect wildlife habitat from abuse and destruction.

After 16 years of planning, construction finally began on the agency's new headquarters in Harrisburg. The complex, scheduled for occupancy by the end of 1987, will house offices, warehousing facilities, and the Ross Leffler School of Conservation. The consolidation of these functions into an agency-owned building is projected to save the Game Commission more than \$25 million over the next 40 years.

The 19th Class of trainees enrolled at the Ross Leffler School of Conservation was graduated this year. The 25 new officers in this class bring to 427 the total number of Pennsylvania Wildlife Conservation Officers trained at the school since it was opened over 50 years ago. For the first time in many years, a full complement of wildlife officers exists in the state.

For sportsmen and wildlife, 26 tracts totaling 12,675 acres were purchased this year for incorporation into the State Game Lands network. 1986 brought the 50th Anniversary of the Farm-Game Program. Today, 2.4 million acres of private land are open, thanks to the dedicated efforts begun in 1936 to provide hunter access and wildlife habitat on private land here. This milestone was the theme of the Game Commission's 1986 major exhibit.

This year brought literally hundreds of North America's foremost conservationists to Pennsylvania, where they saw and learned about our natural resource management programs. Professionals from many disciplines attended the 42nd annual Northeast Fish and Wildlife Conference in Hershey. They were followed by members of the Outdoor Writers Association of America, who attended the group's 59th annual conference, held in Harrisburg.

Reflecting the agency's continued efforts to make hunting and trapping the safest and most ethical sports possible, hunter education and trapper education were combined in 1986, and minimum instruction time was increased from six to ten hours. These changes taxed all those associated with hunter-trapper education, but the new curriculum has been overwhelmingly successful. The fact that Pennsylvania teams garnered first places in the 2nd Annual North American Hunter Education Championship reflects the strong support for hunter-trapper education here.

Space doesn't permit mention of many other milestones, but 1986 has been a banner year for the Pennsylvania Game Commission. It's been a year the agency takes pride in, and one sportsmen and all citizens of the commonwealth can feel proud about, too. — *Bob Mitchell*



# Our Late Season Double

by Joyce and John Wills

**I**T WAS December 21, the final day of the 1985 antlerless deer season. The season was reopened on Saturday because insufficient numbers were taken the first two days. Renewed hopes were building in our hearts as we imagined that just maybe we might get lucky.

My wife Joyce and I were going to take full advantage of this extra opportunity to end our long dry spells. It had been fifteen years since my last deer and Joyce, in ten years of hunting, had yet to bag her first.

We had already made plans for this particular weekend. We were going to have an early Christmas celebration with my dad, who was coming up from Florida, and my grandparents at their home in Crawford County. That, fortunately, is the county we had licenses for, so our plans were set.

## Spirits Lifted

Our spirits were lifted even higher on the drive to my grandparents Friday night. Three deer ran across the road only thirty yards in front of us, and when we slowed down to look at them, we noticed eight more in a cut cornfield. Seeing them made us especially anxious for the next morning.

We arrived around nine o'clock and spent the evening sitting around the fireplace. After exchanging Christmas gifts, our discussions turned to deer and memories of hunts in years gone by were rekindled. It was a heartwarming evening.

Before retiring I laid out our hunting gear for the next morning, everything from rifles and shells to batteries for

Joyce's electric socks—she never was too fond of the cold.

We each slept lightly, visions of deer running through our dreams kept us stirring. The alarm went off at five. We dressed quickly.

When we stepped outside we were greeted by three inches of freshly fallen snow. We were more anxious than ever while we drove to the farm where we hunt. With the snow clinging to all the branches the woods looked like a winter wonderland, and on our way to our stands we saw fresh deer tracks everywhere.

The first two hours on stand were uneventful, so I went to check on Joyce. She was cold and hadn't seen anything either and was ready to move elsewhere. Something intrigued me about



**JOYCE** got cold and moved, so I took her stand. No more than 20 minutes passed before I heard a snort behind me. Five deer appeared. I drew a bead and shot.



**I WAS COLD AND TIRED and ready to quit, but John talked me into hunting fifteen more minutes. Twelve minutes later a deer appeared. . . .**

where Joyce was sitting so I decided to take up watch there. No more than twenty minutes passed before I heard a snort behind me. I felt my body warm with anticipation. Suddenly, one by one, five deer appeared on the trail. Checking and seeing no horns on the one nearest me, I drew a bead behind its shoulder and shot. The deer scattered. I ran to where they had been and looked for signs of a hit. I found a clump of hair and a trail of blood which led me to my deer, 75 yards away. My dry spell had ended. The time was 9:30.

### **Mixed Emotions**

I called for Joyce as I began to dress my deer. When Joyce saw it she had mixed emotions, happy for me, but disappointed for herself. She always seemed to be in the right place at the wrong time. After filling out my tag and dragging the deer to the car, we headed back to my grandparent's house for lunch.

After a warm meal we wished my dad a safe trip back to Florida and

returned to the woods. It was 1:30 when we got there; only a couple of hours or so and the season would be over.

My wife went to her original spot while I circled around to make a drive. I pushed no deer to her, so Joyce moved to another spot and I started my second drive.

This one worked. Joyce saw a white-tail coming through the woods about 150 yards away. She immediately raised her gun and then waited. After what seemed like hours, but was actually only moments, a 4-point darted across the path. She lowered her gun, feeling slightly dejected that the deer—the first she had seen all year—wasn't legal when a doe shot across the same path. She caught only a glimpse of it and never had a chance to raise her gun.

By this time it was 3:30 and beginning to look more and more like another deerless season for Joyce. She was cold, tired, and ready to quit. I could talk her into hunting for only 15 more minutes. I suggested that she sit at the



same spot where I had gotten my deer while I would try to push the deer she had just seen past her again. With doubt written on her face and no enthusiasm left in her voice she said, "okay." So off we went.

As for the rest of the story, I'll let my wife tell you about it in her own words.

Like John said, I was cold and tired, and more than ready to quit. I couldn't believe I had agreed to hunt 15 more minutes, but I did, so off I went. I figured I could make it that long.

It took me about seven minutes to get to my stand. I sat down and began to wait for John to start pushing. I kept looking up and down the trail, and in front of me. I was there only about five minutes before I saw what this is all about. A deer came up over the hill in front of me and stood thirty yards away. I was shocked and so was she. Our eyes met. I slowly raised my gun

and somehow managed to get her in my scope. She was staring. I pulled the trigger and, to my surprise, she fell to the ground. I was stunned and couldn't move. A single shot in the neck dropped the deer in its tracks. I then jumped and yelled, "I can't believe it. I can't believe it," and started towards my deer. Halfway there, I stopped. There was a feeling of sadness about the deer but, at the same time, the ten years of waiting, freezing, and being disappointed all of a sudden seemed worthwhile.

After collecting my thoughts, I started to call John. Before I knew it, he was at my side, kissing and hugging me. He was so proud.

As we cleaned the deer the sun was beginning to set, and when we left the woods it was 4:45.

Smiling at each other, we headed back to the house with the second deer of "Our Late Season Double."

## *Books in Brief...*

(Order from publisher, not from Game Commission)

**Art and Science of Whitetail Hunting**, by Kent Horner, Stackpole Books, Cameron & Kelker Sts., Harrisburg, PA 17105, 192 pp., softbound, \$12.67, delivered. The only way to become a better deer hunter is to learn more about them. Here is the most recent authoritative information on whitetails, and tips for hunters on how to use these findings in the field.

**Marsh, Meadow, Mountain: Natural Places of the Delaware Valley**, edited by John J. Harding, Temple University Press, Broad and Oxford Sts., Philadelphia, PA 19122, 267 pp., clothbound, \$29.95, paperbound, \$12.95. The Delaware River Valley is exceedingly diverse, beginning in the Poconos and ending below Philadelphia. Here is a guide to the valley and what it has to offer outdoorsmen. Chapters covering seven habitats, each written by a specialist, describe sites open to the public for study and exploration.

**Recreating the Double Barrel Muzzle-loading Shotgun**, by William R. Brockway, George Shumway: Pub., RD 7, Box 388B, York, PA 17402, 198 pp., hardcover \$31.15, softcover \$23.20, delivered. The classic double barrel muzzle-loading shotgun came into existence in the British Isles between 1780 and 1830. It was one of the most beautiful sporting arms ever made, and evolved into the superb English doubles that have long been accorded top place among smoothbore firearms. Today, almost no original British flintlock doubles can be found outside of museums, yet some individuals want to enjoy the use of such a gun. This book tells how to do that: by making your own. This is not a casual undertaking, but a person who is proficient with tools and is seriously interested in the subject will find all necessary information in this book—what materials are needed, where to find them and what to do with them. Brockway, an engineer and architect by training, uses many excellent drawings and a down-to-earth text to explain everything. Numerous fine photos illustrate details and give a good idea what the result should be.





BOB  
SORHICIL



**On a hemlock covered  
knoll I found . . .**

# CAMELOT

**By Robert L. Steinruck**

**I** WATCHED patiently as the young spike browsed toward my stand. It was a clear day and a dusting of snow had helped to brighten the landscape even more. The shallow ravine in which the deer was traveling offered just enough protection to keep my partner, some 75 yards below me, from identifying the buck as legal game. Finally, I got a chance, and my 300 Savage didn't fail me.

The buck bolted past me a few yards and dropped.

In itself, that tale is nothing spectacular, but that spike, taken during the 1972 season, marked the beginning of a string of success stories that I could have never imagined on that brisk fall morning. In fact, to cover the whole story, I need to go back several years earlier.

I started hunting in the late 1950s, on the same Lycoming County mountain-side I've been hunting ever since. I remember my grandfather taking a nice 6-point in 1957, and my father missing a buck in '58. I shot a spike in '59. After that, we went without a deer for more than a decade. I often saw nice trophies in the summer and early fall seasons, but once buck season rolled around, none could be found.

Then came October, 1972. I was grouse hunting and had been wandering slowly through our woodland for about three hours. The only action was provided by a few gray squirrels.

It was a warm day and what appeared to be a cool spot on the next ridge seemed most inviting. I found a shaded knoll bordered by several large hemlocks to the east and a small spring to the west. A crumbling stone fence stretched across the top of the knoll.

Looking downhill, the landscape faded gradually into a larger patch of hemlocks.

I found myself beside an old fallen hollow tree and realized that from this spot I had a nearly unobstructed view all around. A step or two in any direction from that log, however, and visibility decreased dramatically.

I sat down on that old tree trunk to drink in not only the cool iced tea in my thermos, but also the splendor of what appeared to be a most promising deer stand. Before long a small herd of deer stopped to drink from the spring. They then moved quietly along the stone fence, and finally out of sight. The only deer to linger was a nice buck with a beautiful set of antlers. I was so busy trying to keep quiet that to this day I have no idea how many points were on the rack. Still, it didn't matter. What did matter was that perhaps I had found a crossing that would change my long string of poor luck.

Before leaving the knoll I saw a half dozen more whitetails, including a 4-point and a spike.

## **Returned Over and Over**

On my way back I carefully digested the surrounding landmarks and trails; I wanted no trouble getting back to that old hollow log. Indeed, since that day I have returned to that little Camelot over and over again.

The 1973 season brought with it an unusual twist. I thought my special stand had been reduced to just a log under a hemlock. That year I took a friend with me on the opening day. He had never hunted deer before, which in itself should have been a warning to me. I placed him on a stand about 75

yards below me, then I climbed to my stand and waited.

Daylight broke through the trees as did some light rain. I noticed several deer quietly moving in my direction, but before they came within range, they stopped suddenly and then turned and drifted away.

After the same thing happened two more times, I decided to check on my friend. I found him standing under a piece of clear plastic that he had draped over some branches to protect himself from the rain. One glimpse of that plastic flapping in the breeze answered several questions I had been asking myself all morning. Shots echoed all day long from my right and my left. But for me, to say the least, the day was unsuccessful.

### Car No Concern

I returned to the woods on Saturday, to the same spot, of course. I was still a bit discouraged, though, at least so much that I took my two-door, two cylinder economy car. How we would ever bring any big game back with my little car didn't concern me at all.

My hunting partner this trip was a seasoned sportsman from western Pennsylvania. He agreed that I should return to the spot I had staked out the year before. There were still plenty of signs in the area. In fact, it appeared that some whitetails had bedded down against the hollow log I call mine.

An hour or so after sunrise I was field dressing a nice 4-point that had trotted along the old stone fence that led to my log seat. The deer dropped only a few feet from where I had tied my drag rope to the spike the year before. It's hard to fully describe my elation. My joy was not merely in the tagging of my second deer in as many years, but that my stand did, in truth, seem to carry with it some magic.

Someday I'm going to write another story about bringing that deer home on top of a car smaller than a VW bug. I only wish I had taken a picture of that scene. I have to believe that there are still people in some of those small

towns we passed through that night who are still talking about a big buck draped over a little car, from bumper to bumper, with two sets of eyes peering out underneath.

In 1974 I invited a friend and his teenage son to hunt with me. I explained about my success at the big log (by now my friends were kidding me about the magic log), and we planned to hunt around that spot. I would begin on the log, with one person below and one above. After three hours the person above would circle into the log and replace me. I would circle to the person below, who would circle above. We would repeat this cycle until the last two hours of the day. At that time we would stay put on our original stands. We agreed that if one of us bagged a buck the hunt would be a success.

It worked perfectly. My friend's teenage son placed his tag on a buck before the morning was over. It was the third buck in the same number of years on the same spot.

This same hunting strategy and the same kind of success accompanied us as the years rolled along. My children became so accustomed to venison that they considered it a step down when beef was on our menu.

In fact, I'm sure they considered me a traitor, when, for the sake of change, my friend and I decided to spend the 1980 season in Huntingdon County. We were invited to enjoy the camaraderie of a small camp in a prime deer hunting area. For two days I saw wild turkeys all over the place, but no buck.

When I returned home I learned that another hunter, who had asked to hunt on our woodland, took a fine 8-point on the second day of the season. The big story, though, was that since I wasn't there, he decided to sit on "my log" for a while, and from that spot he had bagged his trophy.

There was no doubt in my mind where I would hunt the 1981 opener, and I soon learned my partner was in full agreement.

We had the added delight of teach-



ing our proven technique to another junior-license hunter. My buddy's sons were now both beyond the teenage years, and no longer at home, so we invited a boy I had taken on his first small game expedition the year before.

Many hunters will agree that one of the most satisfying joys of the sport is to help a youngster learn the skills and develop the patience associated with bringing home game. Furthermore, the excitement in our young friend's eyes as we arose on that cold Monday morning after Thanksgiving brought back memories of my own boyhood. The times I had jumped out of bed, eaten breakfast, thrown on my clothes, and sat waiting for my father and

**MY PARTNER had a guilty look. "I take your spot and shoot a buck!" he said. "Somehow it doesn't seem fair." I told him everything was great, that I was planning to get one of my own—and I did.**



grandfather while butterflies flitted in my stomach seemed liked yesterday. I remembered how impatient I used to feel toward the nonchalance displayed by my elders. Suddenly it became clear to me how hard it must have been for my father to see my excitement and still maintain his composure. I felt a twinge of sadness when the picture flashed across my mind of my father giving up a shot so that I might get a crack at my first buck.

A rifle shot creased the air. My heart jumped. Next, right on cue, came the whistle: three short blasts.

It was just as my partner and I had hoped. Our young hunter bagged his first buck, a nice 5-pointer, and only thirty yards from my "good ole log." The deer was headed toward me and, to my delight, crossed the youngster's path on the way. The only things left were lessons in field dressing and dragging.

One of the remarkable aspects to this story is that on three occasions during the last ten years we took home two bucks. The first of these banner days was in 1976. My friend had just made his circle into the stand, and it was my turn to walk. I had moved not more than 200 yards when a shot rang out.

### Guilty Look

When I returned, a partner with a guilty look met me. He was in the process of preparing a beautiful buck for a drag downhill.

"I take your spot and shoot a buck," he said. "Somehow it doesn't seem fair."

"Everything's great!" I told him. "Besides, I'm planning to get one of my own! So don't worry about it!"

By 3:30 that afternoon I had a 4-point hanging beside my friend's—his was bigger, I must admit.

In 1978 we also had the problem of fitting two bucks on the car. "Two times we get two bucks for the three of us," my friend kept repeating.

I agreed that it was unbelievable.

Our third double occurred in 1981. I had just finished helping my young friend drag his 5-point down the moun-

tain. I was sure from his expression that he never thought deer hunting could be that much work.

I left him with his buck to rest and gloat a bit, and headed up the trail to my faithful stand, satisfied that the season was already a success.

Ninety minutes later my 300 Savage and I took a nice-sized spike that had tried to sneak past that old hollow log nestled in between the hemlocks and the old stone fence.

It was a memorable hunting trip.

### **New Disappointment**

The next year my young friend discovered a new kind of disappointment — the disappointment that comes from missing the mark. Everything was the same as the season before except that the deer that seemed so sure in the scope disappeared into the shadows with the rifle's crack. I felt sorry for the youngster, but he never offered an excuse for the miss.

To complicate the emotions of the day, a large 8-point tried to cross my path unnoticed at three o'clock that afternoon. I concentrated hard. I didn't miss.

The only thing my young partner said as he helped me drag my buck to the road was, "Just think! We almost had two."

The 1983 season produced only frustration, no venison. Even worse, it produced real doubts about whether or not the magic was gone from the log and all that surrounds it.

Rain came in torrents and I was soon soaked. I spotted a buck some 75 yards away, but one glimpse of me in my wind-blown poncho and he was gone before I could raise my rifle. The ride home seemed long, tiresome, and really strange. We certainly were unaccustomed to going home empty-handed.

The contrast in the weather from the '83 season to the first day of 1984's inspired pleasant conversation as my partner and I tried to avoid the dry leaves on the familiar mountain trail. A slight glimmer of light edged over the

hills to the southeast. The air was cool, but not uncomfortable.

As I settled onto my stone seat, to recover from the hike up the dark hillside, I noted that it was five minutes past the legal shooting time. The stars had faded into a clear blue sky. From time to time I could glimpse my partner's blaze orange suit 150 yards away.

It was just we two "oldtimers" this year. The boys we had brought with us other years were now young men and either off to college or involved in careers away from home. This, along with the pleasantness of the day, brought refreshing reflections to mind.

Then, after being on location for only five minutes, a quick rustle of leaves snapped my attention to the right. An antlered deer (there was no doubt about the antlers) came into view, moving cautiously toward a thicket.

My partner shook his head in disbelief as I dragged my 6-point buck to his stand.

It has been an unbelievable hunting streak for the past thirteen seasons. Over that time, 14 bucks were taken from the same small area.

My log is beginning to deteriorate, several of the hemlocks are no longer standing, and many of the stones have fallen from the fence. But even if 1984 turns out to be the end of all the magic, that old log has provided me with more memories than many hunters have dreams.

And speaking of dreams, at this very moment I can picture a bubbling little spring, a squirrel zig-zagging along some rocks fallen from an old stone fence, a pesky woodpecker hammering away at the trunk of a staggering old hemlock, and a Woolrich-clad hunter poised patiently beside an old hollow log.

The streak did not end in '84. Mr. Steinruck bagged a 4-point at 7 a.m. on the opening day of the 1985 season. Let's hope Bob keeps the streak alive this year, too. — *Editor*





WHEN MY BUCK SLOWED to a trot, I aimed just behind his shoulder and released. My arrow flew true. He went down immediately.

# My Orthoscopic Knee Buck

By Dr. John Oshetski

**A** MILLION stars and a full harvest moon helped guide Ed and me up the mountain trail to our secret hot-spot. We were making our annual archery rendezvous deep in the mountains of central Pennsylvania to find that mystical trophy buck. This year, however, was different. Many times we had to stop so I could rest. Normally I could have literally jogged up the mountain, but this time I had to take it easy. As I sat looking at the heavens during one of my many stops, I thought about the events of the past few weeks.

Exactly three weeks earlier I was in New York having surgery done for damaged cartilage and arthritis in my right knee. I half kidding, half matter-of-factly told my surgeon that if I

needed crutches they'd better be camouflage ones because I couldn't miss my hunting trip. I didn't go to work the week following the operation—my knee problems were more serious than originally diagnosed. I needed crutches to walk. The second week I returned to school. My students were sympathetic, but they did tease me some. The third week I was walking with a noticeable limp, but I felt much better being able to move without crutches.

It took us an hour to get to our spot. Ed and I decided to stay on our stands until 10:00, then we would meet and plan the rest of the day's hunt. Both of us were on the top bench of the mountain. Ed would be approximately 250



**WHEN I RELEASED my first arrow, I heard only a thud as it hit a decayed log. Then all pandemonium broke loose. Deer were running all around me on their way down the mountain.**

yards away from me. The deer normally will come up the mountain and cross this bench about an hour after daybreak. We wished each other good luck and, with great anticipation, awaited the coming of dawn.

I cleared a small area around a red oak tree and made a small blind from the brush and pieces of dead wood. I placed a film canister filled with doe lure about 20 yards upwind of my stand. I then drew my bow and checked the clearance around the tree. Finally, I mentally calculated the distances to various trees so I'd know which sight to use when shooting.

Satisfied that everything was in order, I sat back and watched the stars slowly fade away as the light came from the east. Trying to keep movement to a minimum, I moved only my eyes left to right and back again. It never ceases to amaze me how I can look at a spot many times, and then suddenly find a deer magically appear there. About 15 minutes after daylight I saw a doe feeding on the acorns below and to my right. The way the breeze was blowing she should have picked up

my scent, but she apparently didn't. I thought to myself that the cover up lure and the clean hunting clothes must be working. I watched to be sure that nothing was following her, then continued my vigilance on the top bench.

As I was slowly turning my eyes to the left I saw him, an 8-point working the ridge top about 75 yards above and to my left. My heart started beating like a drum; I thought he would surely hear it. If he continued on the same course, I would have about a 30-yard shot. After watching him for a few minutes I saw more movement. A 4-point was following along in the same general direction, and then several more appeared. A doe was leading her three yearlings and another doe. They continued down towards me. It seemed they would pass within eight yards of my stand.

The two bucks noticed the does and the smaller one walked over to them. They then continued toward me. The lead doe stopped only ten yards away and started to sniff. She knew something was wrong, but not what or where. The other deer, including the 4-point were ten yards behind her, also looking for what was amiss. While all this was happening the larger buck was moving cautiously towards the other deer. He soon came into range, but I couldn't draw back the bow because the movement would have spooked the other deer.

### When to Shoot

It's been my experience that the most critical decision an archer makes is when to draw back the bow and shoot. As the 8-point passed behind a large oak, I came to a full draw. This movement attracted the first doe; she started to stomp her left front leg. The big buck noticed her and stopped 30 yards away, offering a perfect broadside shot. I released my arrow only to hear a thud as it hit a decayed log, and then all pandemonium broke loose. Deer were running all around me on their way down the mountain. All, that is, except for the big one. He ran 20 yards



uphill, stopped, and then turned to look back. He then trotted a few more yards to a place where the only part visible was the top of his rack. The idea of sneaking up on him entered my mind but because of the dry leaves I knew I didn't stand a chance. For three minutes or so I felt the weight of the world on my shoulders.

While I was wondering how I could have missed, I heard deer running down from the top. Four doe and a 6-pointer came by, followed by my buck. They were within 25 yards of me and I just hoped the big buck would stop long enough for a shot. When he slowed to a trot I aimed just behind the shoulder. My arrow flew true. He went down immediately. After waiting a few minutes, I walked over, admired my trophy, and gave a silent thanks to the Red Gods for smiling on me again. This was my 35th buck, the eighth with a bow.

Ed arrived shortly after 10 o'clock and, after telling him my story, he warmly congratulated me and then graciously helped me get the buck

down the mountain to my truck. A true hunting partner is a precious commodity, something I realized more than ever on that particular day.

The next morning found me driving back home, but the trip was anything but anticlimactic. As I drove north on Route 220, the mountains were ablaze with the prettiest fall colors. Each ridge seemed to beckon me. Looking down from one of the mountain tops, I stopped to marvel at the Susquehanna River as it majestically wound its way south like a silver thread. I saw a flock of turkeys, two bucks, a doe, and several birds of prey on my way home. Although still a favorite son, I'm no longer a resident of Pennsylvania. Therefore, my perspective is different from that of most hunters. I'll never take for granted or fail to appreciate the natural beauty of the Pennsylvania countryside, its bountiful game, and the admirable job done by the Game Commission.

For me, it will always be a privilege to spend archery season in Pennsylvania. And bear season . . .

## ***GAME*cooking Tips**

Many restaurants include an entree called "Black Diamond Steak," which is usually a rib or strip steak marinated with seasonings for several days. I developed the following recipe after enjoying this steak while dining out.

### **Black Diamond Venison Steaks**

4-6 venison steaks

Marinade

1 cup oil

1 cup hearty red wine

1 onion, chopped

1/4 cup Dijon-style mustard

1/2 teaspoon oregano

1/4 teaspoon basil

1 clove garlic, crushed

Blend all marinade ingredients in the blender, food processor, or with a mixer. Cover steaks with marinade. Turn twice a day for four to six days. To cook, grill or broil to desired doneness. Best served medium-rare. Serves 4.

This is an exceptionally rich, delicious steak. Made with beef tenderloin, it's festive and elegant. We like venison loin prepared this way, keeping it whole and slicing at the table.

—FROM WILD GAME COOKERY  
BY CAROL VANCE WARY



HE LEFT HIS TRUCK AT THE abandoned railroad bed and began the long hike in. His were the first tracks in the fresh snow.

# THE STAND

By Gene Tollini

THE SNOW was three inches deep when it stopped falling at 5 o'clock on opening morning. That's when the old man parked his truck at the abandoned railroad bed. He would walk the old bed part of the way to his deer stand, almost a mile over what used to be rails and ties but was now like a dirt road. Only the snow slowed him on the first half-mile. He made himself stop, for he was doing what he knew was wrong — walking too fast, starting to sweat. That was exactly why he had started out so early, to avoid having to rush. He made himself wait until he'd cooled down before starting out again.

His were the first tracks in the fresh snow. The moonlight and white snow let him see that. Other hunters would be out by now, but on the other side of the mountain where it was much easier to park along the state highway

and get into the big woods right away. A few would follow in the old man's tracks. Some would be coming up the mountain long after the old hunter was positioned on this stand. Thinking of this made him smile.

Twenty-five minutes later came the next rest stop, just before the hardest part of the hike. Ahead was an uphill climb. Leaning against a stout birch tree, the old man, whose name was Chester (which he hated from school days on) and who went by Chet, pulled a faded red bandana from his back pocket to wipe his face. Gray beard stubble covered his cheeks. Ever since he first started shaving, it had been custom not to do so during buck season. When his wife was alive, she'd made a point to tell Chet he looked like a bum this time of the year. But she'd been teasing and he loved it; the



teasing and the specialness of this time of the season. It always meant holidays coming to add to the deer season excitement. Even when he was still working in the mines, this was the very best time of the year; something to look forward to and to plan for. But he was a widower now, and his two children were both married and living halfway across the country. That took some of the glow off these last few years.

Leaving the smooth railroad bed, Chet started to climb through a seemingly endless stand of oak. He saw his first deer tracks of the day, two sets heading across the mountain. Chet stopped for another breather, wiping his brow. Before he started off again, the familiar sound of deer snorting as they caught his scent made him hesitate. The sounds came from 50 yards across the mountain, but the old hunter could see nothing and knew it was too early to be concerned about a couple of deer when the whole first day was still ahead of him. Perhaps he'd encounter those same deer later when he reached his stand.

Chet's plan unfolded again in his head as he climbed with carefully chosen steps. He would get to the top of the mountain before most any other hunter, then position himself in a small stand of hemlock, a place deer always ran to and a place where he'd had success before. The hemlock stand was scarcely as big as a football field, but it attracted deer like a magnet. It was one of the few areas in this section of woods that offered more than a little cover for fleeing whitetails.

It was maybe fifteen years since the old man had hunted this spot. The long hike had something to do with it. His wife worried about him as he grew older and didn't want him hunting too far from home. Actually, the hunting was just as good in the woods around town, and Chet had more than a few deer from there to verify that. Nearby areas weren't the mountain, though; the challenge wasn't the same, and nothing else had the mystique the

mountain offered. Too, Chet was trying to prove something, to whom he didn't know.

At 6:30 Chet was within a few feet of the top. A hint of light brightened the sky and stars dimmed then disappeared. The old hunter took it all in, the sights, sounds, and smells of the woods he loved. While in the mines he could not get nearly enough time off to visit these haunts. The only thing better than being afield was being there with his children. It seemed such a long time since he had introduced them to this world within the woods. His kids had known how to identify different trees, flowers, and animals long before they encountered them in books at school. Only his oldest, his son, was a hunter, but both shared a love of nature. Chet's daughter had taken this love and respect for things natural a few steps further by getting a degree in biology. Thinking of them now made Chet a little lonely.

The hemlock stand loomed straight ahead as the old hunter walked on level ground for the first time since the railroad bed. Congratulating himself on finding it so easily, Chet stood a few minutes to take it all in. Nothing had changed much in the past fifteen years, save the hemlocks were taller



#### Question

May I hunt during muzzleloading deer season with a scope on my muzzle-loader?

#### Answer

No. Telescopic sights may not be used during the regular muzzleloading deer season.



**AS THE DEER** worked closer, Chet eased into a kneeling position. He could make out antlers. When the deer spotted the old man, he froze, gloved fingers easing off the safety of the worn Savage. The buck turned rapidly. Just as it did, the Savage spoke.

than he remembered. It was dark inside the evergreens and Chet could picture a buck peering out at him, ready to escape out the other side.

Easing his way into the hemlocks, Chet found no escaping buck but something that made his jaw sag. Two orange-clad hunters stood looking right at him. After a long moment, the trio of hunters exchanged small talk in quiet voices. Then one, the old man, slowly walked away.

The two had come up the other side of the mountain, a distance more than twice that which Chet had walked. They looked to be in their early thirties and had told him they planned to post at either end of the hemlocks. The place had paid off for them on the past three opening days, they informed Chet. They all exchanged "good lucks" as Chet turned to walk away. He hoped his dejection didn't show on his face. They seemed to be nice guys. But why did they have to be at his stand?

Legal shooting time was fifteen minutes away as Chet pondered his

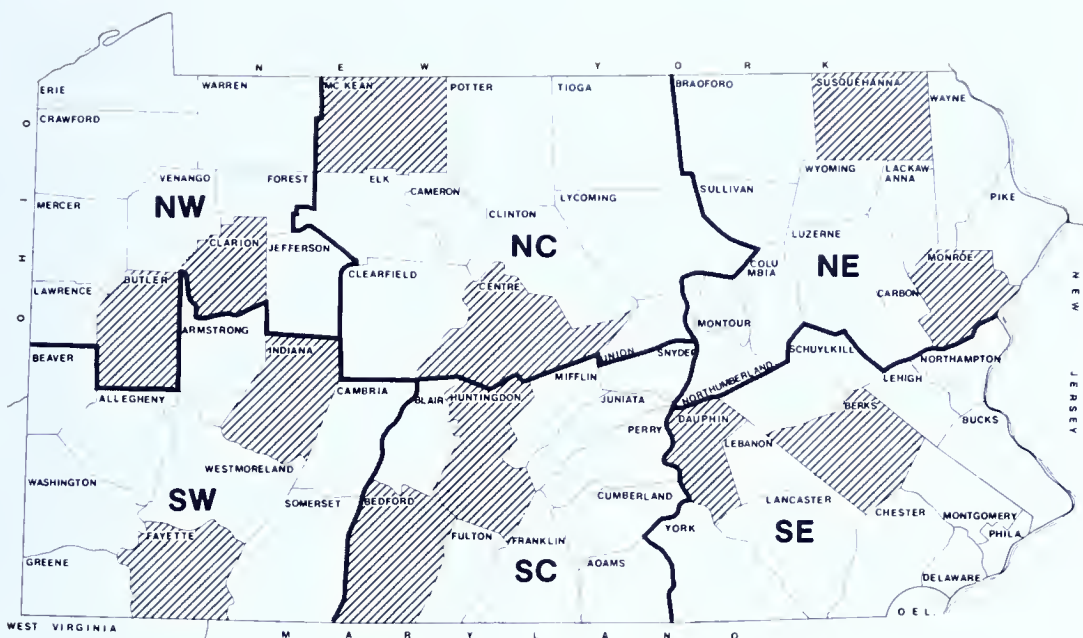
next move. He half-heartedly decided to go back the way he'd come. Walking a bit too fast, he made his way to the steep mountain side he'd just climbed. From beyond the next ridge came the first volley of the day, three rapid shots. For five minutes the old man stood, motionless, catching his breath. More shots rolled through the cold air from all directions. Ready to start down the mountain, something made Chet look to his right. A lone deer was slowly working its way toward him. It wasn't fully alarmed, but it stopped every few feet to stare back at the hemlock stand. It might have wanted to bed down in the hemlocks, only to sense something not quite to its liking there.

### Fine Antlers

As the deer worked closer, Chet could make out what appeared to be a fine set of antlers. When the buck again stopped to look back, Chet eased into a kneeling position. At somewhere around 50 yards the deer spotted the old man and froze. Chet's gloved finger eased the safety off the worn Savage. The buck took one more quick look toward the hemlock stand then, as if trying to catch this thing ahead of it moving, turned rapidly in Chet's direction. Just as it did, the Savage spoke. For one small fraction of a second, time stood suspended, the deer by instinct trying to run, Chet working the lever for a second shot. None was needed. The deer fell in mid-leap. Calm up to now, the old man walked on trembling legs toward the deer, the familiar emotions of pride, thankfulness and fulfillment mingling with a twinge of sadness.

Later that evening the old man would make two long-distance calls, vividly highlighting the events of the day to his children. After a hot bath and maybe even a shave, he would rest a bit in the rocking chair next to the fireplace. Then, turning in for the night, the old hunter would be content again with his dreams of this very special time of the year.





Counties Closed to Late Season Grouse Hunting

A Preliminary Report On . . .

# The Experimental Extended Grouse Season

By John J. Kriz

PGC Wildlife Biologist

WITH A GOAL of providing maximum hunting recreation without subsequent harm to future populations, a study was begun in November 1982 to evaluate late season grouse hunting in Pennsylvania. Some adjacent states hunt grouse until the end of February. Limited studies in a few states have dealt with this hypothesis, but only on a study area level. Our study, the first of its kind, involves the entire state in which grouse hunting continues late into January except for 12 of the 67 counties, two per region, where the season closes three weeks earlier.

The rationale of only two counties per region having a short season, instead of a 50-50 breakdown, is that less abnormal hunting pressure will occur in the long season counties if fewer

counties are closed to hunting. Abnormally high hunting pressure could create a situation that would give misleading results. After four years, the data show no high hunting pressure has occurred adjacent to closed counties. On the other hand, if less than two counties per region are closed, too little information may be obtained to be of any value to make significant comparisons.

Any effect on grouse populations is measured by comparing flushing rates and harvest data in the closed counties to such data in the open counties, especially open counties with similar hunting conditions and population dynamics (flush rates, age and sex ratios) adjacent to these closed counties. These comparable open counties are called "con-

**TABLE 1**

Comparison of flushing rate data between geographical regions and on a statewide basis for counties closed to extended grouse hunting, comparable open counties, and all counties in the regions.

Region	Flushing rate: flushes per hour				
	Average				
	1977 to 1982	1982-83	1983-84	1984-85	1985-86
<b>Northwest</b>					
Closed Counties	1.76	1.73	1.41	1.26	1.66
Open Comparable Counties	1.65	1.75	1.16	1.38	1.67
All Counties	1.76	1.83	1.24	1.28	1.61
<b>Northcentral</b>					
Closed Counties	1.39	1.48	1.50	1.73	2.01
Open Comparable Counties	1.46	1.58	1.32	1.26	1.43
All Counties	1.36	1.42	1.15	1.21	1.61
<b>Northeast</b>					
Closed Counties	0.99	0.93	0.93	0.90	1.10
Open Comparable Counties	1.10	0.89	1.03	1.06	1.19
All Counties	1.18	1.22	1.12	1.09	1.35
<b>Southwest</b>					
Closed Counties	1.66	1.86	1.41	1.36	2.01
Open Comparable Counties	1.27	1.49	1.12	1.53	1.90
All Counties	1.77	1.74	1.42	1.39	1.82
<b>Southcentral</b>					
Closed Counties	1.30	1.25	1.52	1.34	1.37
Open Comparable Counties	1.35	1.59	1.64	1.52	1.75
All Counties	1.33	1.44	1.41	1.44	1.59
<b>Southeast</b>					
Closed Counties	1.36	1.11	0.80	0.94	1.18
Open Comparable Counties	1.36	0.99	0.95	1.00	1.22
All Counties	1.32	1.03	0.90	0.93	1.14
<b>Statewide</b>					
Closed Counties	1.48	1.43	1.26	1.29	1.65
Open Comparable Counties	1.38	1.39	1.19	1.29	1.53
All Counties	1.54	1.52	1.23	1.25	1.56

trol" counties. Baseline information had been collected throughout the state for five years prior to the season extension to determine which open and closed counties had similar statistics for comparison purposes. To be worthwhile, a study of this type should continue, without change, for a length of time in which the grouse population undergoes its periodic highs and lows.

Baseline data concerning average flushes per hour and age and sex ratio information for the period 1977 to 1982 were compared with the first four experimental seasons of 1982-83, 1983-84, 1984-85, and 1985-86. No sharp changes or trends were noted between the closed extended season counties and the comparable open extended season counties, or in comparing closed



counties to all the remaining counties in the region, or on a statewide level. (See Table 1.)

All data were obtained from a sample of approximately 700 to 1000 Pennsylvania grouse hunters who each year record information on flushing rates; they also mail in wings and tails from which we are able to obtain sex and age ratio information. Without the volunteer help of these dedicated sportsmen this survey could not be accomplished.

### Data Analyzed

Data on sex and age ratios between open and closed counties also have been analyzed. No significant variations occurred between the open and closed counties on regional or statewide levels.

It is extremely important to note that the first three years of the study were seasons during which the statewide grouse population was experiencing one of its periodic declines. Data accumulated from the 1985-86 season suggest an upturn in the population. However, it cannot be stated that this is, in fact, a genuine upturn or merely a false indication. Two or more consecutive years of increasing flush rates are necessary to assume a population increase.

Grouse population comparisons between open and closed counties cannot be made with a high degree of confidence when working with declining grouse numbers. As in any statistical study, the larger the sample, the more accurate the results. Samples obtained during a population low tend to be small. As the population increases the sample will also increase, and greater confidence will be expressed with the results of the larger sample.

After four years the study shows no significant differences in grouse populations between counties with short seasons and those with longer seasons. As noted previously, most of these data were obtained during years of declining population. To fully evaluate the experiment, data must be obtained over a period of years during an increasing population. The much bigger sample will give results in which we can have



more confidence. Then we will be better able to judge whether longer seasons do or do not influence the grouse population.

To change the study in any way at this time would negate all the results obtained to the present. It would be foolish to change the length of seasons in open and/or closed counties, switch counties, or even add other game species to be hunted. The addition of an extra week to the statewide rabbit season during the first week of the extended grouse season could very well have biased the results slightly last season. A minimum of seven to eight years with no change in the basic structure of the study is necessary to determine if a grouse season such as we now have may cause any effect on the grouse population due to hunting.

If at the end of the minimum time period we are confident results are similar to what they seem to be at present, we may want to determine if the grouse population can be affected by hunting in other ways; for example, by other types of seasons, zoning changes, or bag limit adjustments. At that time, we can switch counties (closed to open and vice versa) and begin an entirely new study. But until we can have greater confidence in our results from extending the study into a period of increasing grouse populations, it is vital that we continue with no changes, or the time and manpower employed in this experiment and the volunteer help of our cooperating grouse hunters up to the present time will have been wasted.

# LAST CHANCE TROPHY

By John P. Gross

THE SHOT sounded near, but in the woods it was hard to pinpoint its location. A solitary shot usually signals a successful hunter, so my hopes remained dark as the leaden sky. I hadn't expected much; it had been a disappointing season.

Oh, I'd had my chances, but just did not connect. It was that way the entire fall, starting with turkey season. The first day had been bright and crisp, and my spirits were high. I was hunting in Sullivan County with a few friends, and in the morning I had seen two bucks and a bear, but no turkey. Seeing the big game had been exciting, but around noon hunger pangs got the best of me, and I came out of the woods for a bite to eat.

## Munching Away

As I approached the truck I saw my father-in-law Marvin, and one of his hunting cronies Seth, already stretched out in the alfalfa next to the truck, munching away at their sandwiches. They had been hunting about a half-mile below me, and both had seen action. Someone had stumbled upon a flock of birds shortly after the season opened and sent them scattering throughout the woods. A young bird made his last mistake by flying past Seth, and now the turkey would be the main course for a Thanksgiving dinner. Marvin had a chance at a high flying bird but didn't connect. They both related how the woods were alive with turkeys for a few minutes, and how several hunters had scored. The warm November sun was making me drowsy, but the news of turkeys all around made me finish lunch in a hurry and get back into the woods.

Afternoon found me perched on a steep hillside close to where the birds had been flushed in the morning. I had heard that turkeys like to get back

together before night comes, and I wanted to be ready for them. As the day wore on I tried my turkey call, but got no response. In the valley below me I did hear their clucks and putts, so I knew the birds were in the vicinity. The wind picked up, and I snuggled in against a comfortable oak tree and patiently watched the slope below me as the sun slowly lost its race against time.

I was daydreaming when silently a turkey appeared in a small clearing about 100 yards below me. With a scope-sighted 222 on my lap, I could just about taste him. I had only to raise the rifle a few inches, rest it on my knees, and squeeze off the shot. The rifle came up and my eye found the scope, but no turkey was to be seen! Panicking, I lowered the gun for a better view, only to see the turkey complete a final flap of its wings that carried it out of sight. The bird must have detected my slight movement and taken off immediately. Later, everyone told me that a turkey has the best eyesight in the woods, but their information was too late to help me.

Bear season found me in a heavily wooded area of Bradford County. About fifteen of us had assembled to enjoy the mountain and try for a bear. Some people don't like to hunt with a gang, but when the laurel is as high and thick as it is there, driving seems the only way to get results.

In recent weeks a number of bears had been sighted near the camp, and on the first drive of the day I saw their sign frequently. I had hunted bear for only a few years and had never been successful, but my appetite had been whetted for one of these elusive black ghosts. The enthusiasm of the camp talk had rubbed off on me, and now I cradled my 35 Remington and kept straining my eyes through the woods, hoping I would be given a chance to use it. Nothing was







sighted, however, and eventually I came upon the watch line, indicating the drive was over. I walked over to Dick, the driver above me, and he said he'd seen a few deer. He invited me up to the truck for a cup of coffee, but I declined, wanting to stay in the woods.

As Dick disappeared over the hill, I parked myself on a rock and waited for the crew to come walking up the road. The skies were clear and the woods seemed full of promises. The tranquil setting was shattered by rifle shots coming from the vicinity that Dick had just taken. Rifle at my shoulder, I counted until the shots totaled ten. But I saw nothing.

Later I learned that as Dick cleared the top of the hill he met a member of the watch line, who was watching three bucks standing nearby. The deer were soon forgotten, however, as a good size bear came ambling into view. The two of them opened up, but after the guns were empty the only thing on the ground were the spent cartridge cases. I kicked myself for not accepting the invitation for coffee, because then I'd have been in on the action. Perhaps I'd have

**I WAS DAYDREAMING** when a turkey silently appeared in a small clearing about 100 yards below me. With a scope-sighted 222 on my lap, I could just about taste him.



just added to the noise, but at least I would have had a chance. As it turned out, those were the last shots fired for the day.

I recalled the past failures as I sat on my stand during the opening hours of deer season. I had threaded my way through the morning darkness until I saw the large black oak beckoning me forward. At its base I made my stand. The location had been a good one, for several nice bucks had fallen to my rifle here over the years. Today wasn't the past, however, and nary an antler was sighted. Job commitments forced me to leave the woods early, and as I was driving home I spied a spike along the road. But the hour was late and I didn't even slow down. I just chuckled at the thought that I could spend seven hours shivering at the base of an oak tree, only to see a fine buck from the warm cab of my truck as I drove home.

I had enjoyed the day and still had high hopes for the rest of the season. Work kept me busy Tuesday and Wednesday, but on Wednesday night I packed up and headed back to Bradford County for a three-day hunt. I'd go back to Stone Mountain with some of the same crew I'd hunted bear with. We hunt on a large rock-laden tract of timber, and over the years the magic of the mountain has engulfed me. The excitement of seeing a deer, bear, or turkey at any moment, the flash of color from the native brook trout as they dart for cover, and the majestic hemlock trees that tower overhead all lead to a sense of serenity. We always have a good hunt even if the truck bed is empty when we pull out of the woods.

But I was here to hunt, and we hunt hard. Thursday found me starting to enjoy myself, even if I didn't see much. Friday came up clear and mild, and I began to get anxious. After several unproductive drives I found myself on a promising watch. I stood behind a fallen tree that was about three feet off the ground, and used the tree to provide a rest for my rifle. I get a good feeling on certain watches, and this was one of them. I had a good field of



vision, was hidden, and even had a rifle rest. All I needed was a deer to complete the setting.

Anticipation built as the drivers began moving. I hoped they were pushing a trophy toward me. Their shouts were heard in the distance just as I sighted a patch of brown drifting through the woods. The underbrush was thick, but I found a clear spot ahead of the deer and waited. The scope was centered on the clearing for I knew I might not have much time. The deer didn't appear, however, and I lowered the rifle to get a wider view. As my field widened I saw a deer walking away from me to my left. Intent on watching the narrow opening, I had missed this deer as it approached me from a slightly different direction. It must have seen me and now was walking away.

The scope showed a nice set of antlers. Desperately I tried to aim through the brush, only to hear a rifle crack near the buck. The deer dropped and I knew I had lost another one. I walked up and congratulated the successful hunter. It's hard to be envious when a fellow crew member gets the trophy instead of you, but as I looked at the heavily antlered 7-pointer I couldn't help but wonder what I was doing wrong.

Missing the chance lowered my spirits, and the overcast skies on Saturday morning didn't help cheer me up. It was my last day to hunt, and I found myself thinking more about the chance of a long, snowy ride home than of deer hunting. I had an antlerless license, and for the first time began to think I might be forced to use it. To add to the gloom, my scope fogged up.

It was very damp, and the shivers danced up my back whenever I stopped moving. The first drive of the day didn't even produce a tail, and I was assigned to the watch for the second push. Unfamiliar with the terrain, I searched for a good site to locate myself. I picked a spot but it didn't seem right, so I moved about 40 yards. This site didn't seem any better, but the drive was starting, so I decided to stay where I was.

A hundred different thoughts raced

through my mind when a single shot sounded. One shot, one down buck, I thought. My hopes still were low when I heard twigs snapping and saw dark forms materialize in the woods. Too far, I thought. If only I had stayed on my original stand. Oh, well, the buck was probably down already.

I picked a small tunnel through the trees and watched as the deer slowed to a trot. One passed, then two, and then a third deer filled the opening. It stopped and turned its head in my direction. I was shocked, for hidden between those big ears were two nice spikes. The only deer to stop, the only deer to face me, and it was a legal buck! The chest area was free of brush, so I hurried to make my move. The shot would be a good one or a clean miss, for a tree shielded everything but the chest area. Hours of practice went into play and the gun went off, almost on its own.

### Deer Everywhere

Deer scattered everywhere, and for an instant I thought I had been dreaming. The woods seemed empty. I hurried to where I had last seen the buck, but was greeted only by a maze of tracks in the snow. No blood, no hair, and I had no idea which track to follow. Had I missed my only shot of the year? I widened my view to search for any signs, and saw a form on the ground a distance away. I was almost afraid to look closer, feeling it would be a log and not my buck. But my fears were eased when I made out brown hair. My luck had finally changed, and I had my buck.

As I field-dressed the buck, I reflected on the season. The drivers hadn't reached me yet, and I was glad to be alone with my thoughts. The deer was only a spike, but he had brought me as much satisfaction as any deer I'd ever taken. The size of the rack, or even if you get a deer, shouldn't matter. I had spent several enjoyable days in the woods, talked with friends, and hunted hard. The buck was just the icing on top of a good season.



**THE APPROACHING VEHICLE** was almost upon me before the driver responded to my swinging flashlight and brought the auto to a reluctant stop.

## 'Twas the Night Before . . .

**By Bob Shaffer**

DGP, Greene County

**I**T WAS BITTER cold, almost zero. Things looked ideal for the buck hunters tomorrow. I felt certain that thousands of hunters across the state were tossing in their sleep, dreaming of the next morning which would bring in Pennsylvania's 1962 deer season.

I was then working in Juniata County, and down along Tuscarora Mountain road, the season was already in for game protectors. I had planned to meet Deputy Bill at the Old Church at midnight. As I pulled into this area I saw he had arrived early and was waiting. A heavy frost had turned everything white and an almost full moon added eerie shadows. Bill's car windows were rolled down, and I remarked on the cold and told him I had just covered eight miles of excellent deer country and had not spotted even a single car light.

Almost simultaneously with my last word, *wham*, a heavy rifle shot came from directly behind me, the area I had just driven

through. Quickly, Bill and I conferred and he left to make a swing behind the spot and approach from below my location. As he tore out to make his circle, I used my black Chevy to set up a makeshift roadblock. Within minutes I noticed a single light coming in my direction, moving slowly. My black car didn't reflect much light, and the approaching vehicle, an old Buick, was almost on me before the driver responded to my swinging flashlight and brought the auto to a reluctant stop.

The single light was quickly explained as I noticed a headlight had been completely removed. By this time, Bill had come up behind the automobile and three other deputies were hurrying up the mountain road, homing in on the shot. As I identified myself to the occupants, I noticed that the removed headlight was in the hands of a passenger in the old Buick. An extension cord had been hooked up to the battery



and wired to the light, and this Rube Goldberg contraption was being used as a spotlight. There were four men in the Buick and as they piled out we separated them and, stating our purpose, proceeded to search the auto. Jammed down under and behind the back seat we could see the muzzle of a rifle.

We had to remove the rear seat to get the rifle. Bud, Charlie and Carl had arrived by now, and Bud, who was a mechanic, helped to take the seat out. The rifle, a Model 94 30-30 Winchester carbine, was fully loaded.

Three of the men in the car were on their first Juniata County deer hunt and had arrived at Port Royal about an hour earlier from the Philadelphia and Harrisburg areas. After coffee and a few drinks they decided to go spotting. They all left their rifles at home but one man. His wife had proudly presented him with his Christ-

mas present prematurely, a brand new 30-30. She knew a new deer rifle after deer season wasn't much help. He had taken it out of the box at Port Royal and shown it proudly around.

On the way up the valley, just behind me, they had spotted a 5-point that just stood looking at them. The temptation was too great. The first shot from the new rifle must have missed, as we could find no deer or sign they had hit one.

Before the justice of the peace, they all pleaded guilty to the charges. In addition to the fines and costs, the rifle was ordered confiscated.

As the hearing broke up the ex-rifle owner told me, "Might as well stop by the house and pick up the box the rifle came in. I won't have any need for it. I won't be able to hunt for three years and you can bet your bottom dollar my old lady won't be talking to me for three years either."

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## Chesapeake Bay Workshop

A workshop entitled "Wildlife and Water Quality," presented by Jerry Hassinger of the Game Commission, will be part of the Pennsylvania Chesapeake Bay Conference on February 28, 1987 at Gettysburg College.

The Department of Environmental Resources, the Chesapeake Bay Commission, and other groups are sponsoring the day-long conference. All conference workshop topics will focus on the connection between the Susquehanna River and the Chesapeake Bay. Other topics include: boating, fisheries, toxics, community water quality, bay education, and new agriculture technology.

Pennsylvania began a cost-sharing program in 1984 for landowners in selected areas of the river basin who install conservation practices on their land to improve Susquehanna water quality entering the bay. Because the Susquehanna River supplies half of the bay's fresh water, good conservation practices in the river basin protect both local water quality and that of the Chesapeake. Over \$2.5 million dollars of the Pennsylvania Bay Program is designated directly for cost-sharing funds.

For information on the Pennsylvania Chesapeake Bay Conference, write to: Pennsylvanians for a Clean Chesapeake Bay, 121 South Street, Harrisburg, PA 17101, or contact the Bay Education office at 717-236-1006.

## Thoughts While Walking

*Life can only be understood backwards; but it must be lived forward.*

— Soren Kierkegaard

**T**HE REAL excitement of a white-tail hunt is often limited to just those few moments between the first sighting and the fatal shot. Such was the case with my latest buck, taken about noon on the rainy opening day of the 1983 season.

ing deer and my first shot hit the left hip, but it was sufficient to drop him in his tracks. As he tried to regain his footing I chambered another cartridge and nailed him just behind the left shoulder. Suddenly aware of the pounding of my heart, I watched him

## ***My Rainy-Day Buck***

**By R. Dean Clark**

The last bite of my second sandwich was still in my left hand when two shots rang out from Kuneck's Hollow to my right. I looked that way just in time to see four deer angling up the side of the ridge. They were headed straight for me at full speed, and despite the rain and hazy conditions, I quickly spotted antlers on the third one. I dropped the sandwich and reached for my Springfield '06 which was lying in a large root protruding to my left. My hand slipped out from under my poncho and I flipped the front scope lens cap open and the safety off as I swung the rifle on target.

### **Best Opportunity**

My first and best opportunity presented itself when the deer veered to their right as they approached the steeper side of the ridge and passed about 35 yards downslope. Although they were running full speed I had no trouble picking up the buck in the scope. However, I did have trouble getting my fat-gloved finger into the trigger guard. By the time I managed that, precious seconds had slipped by and the deer were directly below me and passing behind several large trees.

I was ready when they emerged, and had a clear path to follow the buck. In the excitement I failed to take an adequate swing with the fast mov-

roll slowly down the slope and come to rest against a small sapling.

Strangely, my first words were, "It's about time." It had been quite a few years since I connected and my wife was starting to question why I bothered to go hunting at all. This buck, a nice 4-point, dressed out at 110 pounds and would give me hunting rights for a few more years.

The whole incident took about 60 seconds from first sighting until the animal came to rest against the sapling. It provided the level of excitement which keeps me coming back year after year despite a rather low success ratio. My son is already way ahead of me in that regard, but then I always joke to my friends that, "I taught him how to hunt."

To really appreciate this whitetail story you have to know the many factors which played an important part in making the 60-second event a reality. I'm never surprised to learn a few new techniques every year I hunt. This time I really put them all together.

I live in Lancaster and hunt out of the Cochranville Camp on Short Run Road in Potter County. The cabin, fondly known as the Tin Shanty, is one of the oldest in the area. It was built in 1925 by several resourceful farm families from Chester County. I joined in 1961 at the invitation of Harlan May, whose father and uncles were mem-



bers. The camp has a nice mix of young and old members and is as well known for its good food, card games and story telling as for hunter success.

I look forward each year to the trip north and another chance at the elusive whitetail. However, circumstances in 1983 had me resigned to one of my infrequent stay-at-home seasons. My hunting companion, Harlan May, had recently accepted a demanding job assignment and was not sure he could get away for our annual trek to the northwoods.

I was sitting at my office desk on the Tuesday morning before Thanksgiving, just back from an unsuccessful bear hunt in the Poconos. The phone rang and a familiar voice said, "Lets go to the mountains. I've got to get away for a few days." It took me about half a second to decide, and after some quick planning we set the departure time for 6 p.m. on Friday. That translates to 6:30 Harlan's time, for he's always about a half-hour late.

We were well on our way before we

went through our usual now-what-did-we-forget routine. I use a detailed check list and seldom come up short; however, I did recall that I had intended to buy a lens cap for my scope. "Oh, well, it probably won't rain anyhow," I remarked. How wrong I was.

As we crossed the Route 44 bridge into Jersey Shore, Harlan suggested we stop at the sportsman's shop at the other end of town and see if we could buy a lens cap. The salesman brought out a tray about a yard square with caps of all sizes. He soon fitted one to my scope and we were on our way. Little did I realize the significance of this incident.

Saturday was a beautiful day, windy and cool, with a little snow on the higher elevations. We hiked up Yokum Ridge just behind camp to check for deer sign and try out our walkie-talkies. Traversing the ridge top I cut the trail of one large deer. Its hoof print was about three inches front to back, with a half-inch split down the middle. Obviously a large heavy animal.

**TWO SHOTS RANG OUT from Kuneck's Hollow. I looked that way just in time to see four deer angling up the ridge. I spotted antlers on the third.**





A few minutes later, on the half-hour, we checked in on our walkie-talkies. Harlan's voice was a subdued but audible, "I've got an 8-point looking right at me." He described his location and it was obvious they were just below me on the side of the ridge. I carefully skirted the edge of the ridge, scanning the woods below, but was unable to spot the buck. He was either too far below me or too well hidden. Quite likely the track crossing the top had been made by the buck. I decided this would be a good spot for a Monday morning stand.

Most of the camp members arrived on Saturday and Sunday. After picking up the groceries at Keith's store in Germania, devouring a substantial meal and firing a few shots to check the rifles, we were ready for the big day.

### Pounding Rain

I awoke about 3:15 Monday morning. Rain was pounding steadily on the tin roof, and the heavy breathing and snoring of the others made it impossible for me to fall asleep again. I lay there contemplating the day ahead and wondering how I could cope with the steady downpour. When you hunt from our camp, almost any direction is uphill. Wearing raingear usually results in moisture inside as well as out, due to heavy perspiration. I was

bound to get wet and end up cold and miserable on stand.

Suddenly it hit me. The ideal plan to conquer the bad weather. I would pack a dry undershirt, flannel shirt and hunting jacket in the plastic trash bag I'd used to transport my sleeping bag. Then, looping the closed end over the rifle slung over my shoulder, I would arrive on stand with a change of dry clothing, at least from the waist up.

Soon somebody's alarm sounded and I hopped out of bed and started to dress, disregarding the rain still pounding the roof. Nobody else stirred. That's okay, I thought, they all think I'm crazy anyway. After cereal and orange juice, I stuffed two sandwiches, cookies, an apple and a candy bar in my belt pouch and started to put my plan in effect. One of the younger members got up just before I left and wished me luck.

### Pitch Black

It was pitch black outside and I used my small flashlight frequently despite intimate knowledge of the terrain. The rifle and bag of clothes got a little heavy as I climbed the slope and, as expected, I was soon saturated with sweat.

As I approached my chosen spot I was shocked to see a flash of light ahead. Someone else was in my spot. A rainy morning, dark as could be, 5:30 a.m. and high on a ridge and someone was in my stop. He was crazier than I was!

I adjusted my plans and moved several hundred yards out the ridge. Fortunately, I found a large hemlock with roots that made a perfect seat on the steep mountainside. I quickly stripped to the waist, donned the dry clothing and my poncho, and made myself comfortable. Leaning the Springfield against the root with the lens cap closed and the 3-9x variable set on 4x, I settled back, hoping for the best.

Dawn came slowly and visibility was limited to about 75 yards as patches of fog gently moved by. I



spotted one large deer about 50 yards above me on the ridge, but it turned out to be a doe.

The silence was unbelievable. Except for a few distant shots there was no activity until nearly 9:30. Such a thing was unheard of in our neck of the woods. Between 7 and 8 it usually sounds like a war.

Well, you read the climax to this story in the first few paragraphs. Sixty seconds packed with excitement, a 4-point buck, and lots of congratulations back at camp.

When I reflect on the events leading up to the final moments, I'm amazed at how things fell into place. The deer hunt trip which almost didn't happen,

**Subscribe to**

## **GAME NEWS**

**For a Friend . . .**

the lens cap purchase, the buck sighting on Saturday, the devious plan in the sleepless hours of the morning, the wrong (but lucky) stand, and finally the dry clothes which enabled me to "stick it out" all morning in comfort despite the miserable weather.

My rainy-day buck was number seven, but it wasn't all luck.

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### **Last Chance for Second Stamp**

Don't delay any longer! At the end of this month all remaining supplies of Pennsylvania's second waterfowl stamp will be destroyed. These stamps, the 1984 design by Jim Killen, are still available \$5.50 each, \$22 for a plate block of four, and \$55 for a full sheet of ten, delivered. But time is running out. Order today from the Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567.



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### **Cover Story**

Alert on a mountaintop, these deer know something is amiss as a fluorescent orange army invades the woods and fields. "Ridgetop Retreat," by Gerald Putt, ought to stir some memories—or dreams—for all whitetail hunters. A limited edition of 750 signed and numbered prints of "Ridgetop Retreat" is available. Each print is produced on acid free stock and measures 13x20 inches. Order from Gerald Putt, P.O. Box 184, Boiling Springs, PA 17007, at \$85, delivered.

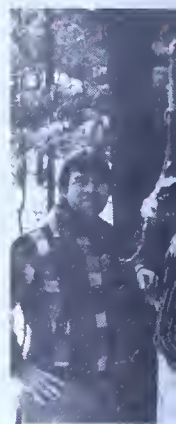


This group of hunters from Waynesboro had good luck in Centre County. PAUL L. BIGELOW, spike; DENNIS BIGELOW, spike; PAUL C. BIGELOW, no luck; DARIOUS WALTER, 6-point; and BILL BIGELOW, 5-point.

PAM JURY, Newport, stayed in Perry County and used a 35 Remington to bag this 4-point, her first buck.



WH



o hunters from Reading with their rks County trophies, PETER SKOW-  
ON, above, is framed by his first  
ck, a 166-pound 6-point. Below,  
HN MORISSETTE with his first buck  
16 years, a 110-pound 6-point.

RON HONICK, McKeesport, shows off his 185-pound Westmoreland County 8-point to his brother, Deputy Game Protector Len Honick.



Here are just the first four of six trophies taken by eight members of Gowan's Camp, Bradford County, during the season's first two days: DICK HOWES, 5-point; HERB LINDERMAN, 6-point; TERRY MITCHELL, 7-point; and NATE GOWAN, 7-point.

Not since 1  
member of  
County. Bu  
when four o  
who did are  
BILL POTT



LEE THO  
unusual  
168-pou  
LARRY T  
same are





# TDETAIL IME

GARY BORTNER, left, Dallastown, dropped this Bradford County 9-point after his dad, GEORGE, missed it. The trophy was Gary's second in 22 years of hunting.



had a buck been taken by a  
eHodge Podge Lodge in Elk  
at year their luck changed  
nt hunters connected. Those  
SEN DUNCAN, REGE FRIDAY,  
ed CLYDE CHAMBERLAIN.



ON, Slippery Rock, left, bagged an  
ony in Butler County last year—a  
point still in velvet. Lee's brother,  
OPSON, bagged a 3-pointer in the  
Lawrence County is where TOM PAV-  
OV, New Bedford, bagged his first  
uck, this nice 8-point.



CLAYTON ARNOLD, New-  
port, bagged this big 11-  
point in Perry County.

JOHN PALLERINO, Eau  
Claire, waited until the last  
day of the '85 season to bag  
his first buck, this 117-pound  
Butler County 6-point.



DAN GOTTHELD, Belle  
Vernon, collected this  
trophy 10-pointer in But-  
ler County on the first day  
of the 1985 season.

MIKE MINGIONE, Douglassville,  
took his 8-point in Elk County at  
8:15 on the opening morning.







**CHRIS WHORRAL**, Fort Washington, is obviously pleased with this big Sullivan County 6-point, his first in five years of hunting.



**BEN and JOE ZISEKY**, Windber, bagged these bucks on their last drive on the second Thursday of last year's season. Ben's is an 8-point, Joe's a 12-point. Little Adam is looking on. **LARSON YOUNG**, below, bagged this Northampton trophy with one shot from his 30-06 on the last day of the season.



The **SCHWEIGER** family did quite well in '85. **STEVE** took a 5-pointer from Crawford County, while **TOM JR.**, got an 8-point, **TOM SR.**, a 7-point, and **DUANE WHITE** bagged a 9-point, all in Butler County. **RICK SCHWEIGER**, not pictured, got an 8-point in Butler County on the season's first Friday.



**JOE DYORICH** took his 9-point on the first day of the 1985 season in Somerset County, near Windber.

Greensburg's **SHAWN OSIKOWICZ** went to Forest County to get his first buck, this nice 8-pointer.



**AMY LONG**, Owings Mills, Maryland dropped this 120-pound Tioga County 4-point, with one shot from her 223 T/C single-shot.

Representative **B** County, and his two beauties in week of last year





DAVE WRAZIEN, Bethlehem, took this 8-point, his third deer, in Susquehanna County.



WALTER WARREN, Mifflinburg, and RICHARD GEARHART, Lewisburg, took these bucks, a 5-point and an 11-point, on Union County's Buffalo Mountain.

After ELMER GREGER, Washington, dropped this Greene County 10-point, two other bucks walked right up to him.



PHYLLIS MULLINS, Delta, took her 128-pound 7-point in lower York County.

BODSHALL, Montgomery  
Perry bagged these  
County during the first  
season.

DIANE ALLEN, left, Harrisburg, stayed in Dauphin County to find this 7-point. Right, RUSS SCHUCHMAN, Pittsburgh, took this Westmoreland County 8-point on the first Saturday of the '85 season.





# FIELD NOTES



## Do Unto Others . . .

**WESTMORELAND COUNTY**—The best code of ethics to follow while hunting on areas open to the public is the “Golden Rule.” By showing respect for the landowner, his land, and the wildlife which lives there, you will be helping to keep the land open for public hunting for many years to come. — DGP Dennis L. Neideigh, Greensburg.



## Keep Thinking

**YORK COUNTY**—Farm Game Project Manager Dick Garrett reports that one evening one of the cooperating landowners heard a loud ruckus coming from his barnyard. When he looked out the window he thought he saw a red fox chasing one of his prize hens. Not wanting to be victimized by this bold thief, the farmer loaded up Old Betsy and started for the barn. As he turned the corner ready to let the thieving fox have it, he found his chicken tangled up in a red onion bag. I thought of two titles that might be appropriate for this story: “The Case of the Sly Old Red Onion Bag,” or “The Farmer Who Got His Bag Limit.” What do you think? — DGP G. C. Houghton, Manchester.

## Best Deal Around

**CLEARFIELD COUNTY**—While staffing the Game Commission’s booth at the county fair, a man asked if many people complained about the price of hunting licenses here. I told him that some do. The man said he was from Oklahoma and he thought Pennsylvania’s hunting license fees were among the lowest in the country. He explained that in Oklahoma a basic hunting license costs \$10 but is usable only for hunting squirrels. Additional stamps are required for other game animals at a cost of \$8 each. I guess Pennsylvania is the place for “bargain hunters.” — DGP Colleen Shannon, Luthersburg.

## This One Was Lucky

**BEDFORD COUNTY**—A woman called recently about a porcupine which had a can stuck on its head. With much effort and the aid of my catch pole, I was able to snare the animal and remove the can. The porcupine ambled off as if nothing had happened. Had this concerned citizen not discovered the animal and called, however, it surely would have suffered a slow death by starvation. The moral of the story is *Please Don’t Litter*. Debris is not only unsightly, it’s also hazardous. — DGP R. Jim Trombetta, Woodbury.

## All Kinds

**BRADFORD COUNTY**—Deputy Bill Smith had a real nice drive one day in July. As he was traveling from his farm near Wyalusing one morning, he saw a hen pheasant with her brood, a hen turkey with her brood, two bucks and, last but not least, a black bear. — DGP Edward N. Galloway, Wyalusing.



## Grand Central Station

**GREENE COUNTY**—I was quite impressed when I visited Farm-Game Cooperator Mike Kuran. At least 50 ruby-throated hummingbirds were swarming around five feeders he has hanging from his front porch. Mike uses over 100 pounds of sugar each summer to feed these fascinating birds. To see four birds occupying each feeder and many more hovering nearby, waiting their turns, is an exciting experience. With the speed these birds are able to dart in and out, I'd hate to be a traffic controller at Mike's airport.—DGP Robert P. Shaffer, Carmichaels.

## Uplifting

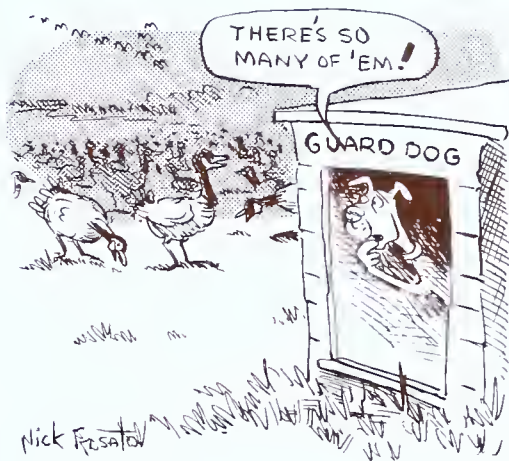
**DAUPHIN COUNTY**—Every now and then someone takes the time to say thanks after receiving help solving a wildlife problem. I've gotten a few notes and phone calls from persons expressing their appreciation. You know who you are. I just want to say that these always seem to come at the best possible time, usually when I've had the feeling of being overworked. Your comments are most appreciated. Thanks.—DGP Skip Littwin, Hummelstown.

## Bring Up The Rear

**JUNIATA COUNTY**—While looking for turkey and grouse broods on Tuscarora Mountain, I came upon a doe. She was feeding on a bench above me while her two fawns frolicked nearby. When she winded me, though, she and her fawns bolted immediately. Instead of running away, however, they headed directly toward me, probably confused by the swirling breezes. The doe stopped immediately when I stepped out from behind a tree. The two fawns, however, were not quite as alert. I'll never forget the look on that doe's face when her two fawns ran smack into her back end and were sent sprawling head over heels at her feet.—DGP Dan Clark, Honey Grove.

## Returned

**CAMERON COUNTY**—Chet LaBrozzi was driving home after spring gobbler hunting when he saw a tom turkey crashland along the road. Examination revealed that the turkey, which was dead upon impact, had also just been shot. Chet could find no hunter so he put his own tag on it, thinking no officer would ever believe his story if he was stopped. At home, he put the bird in his freezer, and that's where you might expect the story to end. But Chet spent several weeks searching for the hunter who was on the mountain that morning. Finally, he learned it was Phil Brown. Chet went to see Phil and asked if he had lost anything. Phil was confused at first, but after hearing Chet's story, elated. In one of the most selfless acts of sportsmanship that I've heard of in a long time, the trophy was returned to its rightful owner. Nice going, Chet!—DGP Joe Carlos, Emporium.



## Tough

**MERCER COUNTY**—When hundreds of geese began feeding on the grass and leaving droppings all over the Shenango Reservoir public beach, a guard dog was obtained to keep the geese away. But the plan didn't work. The geese chased the dog back into his box and then continued to make nuisances of themselves. Now what do they try?—DGP J. McKellop, Hadley.



### Now He Knows

**CLEARFIELD COUNTY**—When I went to drop off some hunter ed materials at an instructor's home, I asked the lady who came to the door if Lynn was home. She told me he wasn't, but after I asked if I could leave him some supplies, she said okay. After I made about six trips and the living room was nearly filled, the lady asked me what was in all the boxes. I told her they were for Lynn's hunter ed class that night. "Oh," she said, "you're looking for Lynn English. He lives next door." — DGP Don Zimmerman, Drifting.

### Just Look For It

**CAMBRIA COUNTY**—On a recent trip I spotted a roadkill lying with its head in Westmoreland County and its tail in my district here. As it was my day off and I was in my wife's car, I decided to pick it up the next morning. I jokingly told my wife that my neighboring game protector would have to meet me and pick up his half of the deer. The next morning I found a large sign reading "Free Deer Steak" posted over the carcass. A passerby apparently found the opportunity to pull a prank on the new guy too good to miss. I used to think picking up roadkills was a serious job, but I have learned there can be humor in every situation. — DGP Richard F. Weaver, Johnstown.

## Neighborhood Dispute

**BUCKS COUNTY**—Last fall a man called me because his neighbor was hunting in a safety zone. Investigating, I found that the individual had failed to mention he was talking about his dog's safety zone. In an attempt to stop his neighbor from hunting, this person had placed his dog's house out in the woods. When I explained that this incident didn't exactly qualify as a violation, he got angry and accused me of not being concerned for his dog's safety and well-being. I wonder if his dog's safety was in his mind when he put the doghouse there in the first place?—DGP Cheryl A. Trewella, Trumbauersville.

## County Involvement

**NORTHAMPTON COUNTY**—The 1986 Northampton County Junior Conservation School concluded at the end of July. All the youngsters had a good time while learning a great deal about natural resource conservation. In addition to classroom instruction, they visited SGL 168, observed Fish Commission stream stocking procedures, visited a bee farm and a taxidermy shop, and took a canoe trip down the Delaware, on which they picked up a lot of litter. This is such a worthwhile program I'd like to see more counties adopt similar ones. — DGP Richard W. Anderson, Nazareth.

## Three Ways

**McKEAN COUNTY**—While patrolling last summer, I saw two men from downstate picking up cans along the road. They told me that each time they come up to their camp they travel the roads and pick up cans. They said there are three benefits from this: The roadsides are cleaner, they get to see the country, and the money they earn by selling the cans helps to pay for their hunting trip in the fall. We could sure use more people like Ray and Mike. Keep up the good work. — DGP Jim Rankin, Port Allegany.



## Make It A Safe One

**WARREN COUNTY**—Based on the large number and size of the deer I've seen throughout the district, this should be a good season. Hunters—let's make it a safe one, too. Identify your targets and be sure to wear at least 100 square inches of fluorescent orange. —DGP Barry Zaffuto, Tidioute.

## Hum-m-m

After spending a muggy hot afternoon in the field with Greene County DGP Rod Ansell, I was really savoring a cold drink at his headquarters—that is, until his wife Amie asked why I was drinking hummingbird nectar instead of lemonade or iced tea. —RF D. E. Little, Bolivar.



## Too Efficient

**SNYDER COUNTY**—Ted Reitz, manager of the Middleburg swimming pool, reported to me that because of a couple of burglaries he had to spend more time at the pool during the night. This summer, however, help arrived. A skunk (Ted calls him "Buddy") arrived for work every evening by squeezing under the pool fence. This guard skunk did his work well, but it didn't learn who's boss. One night he forced Ted up the high dive tower and kept him there for 45 minutes. —DGP John Roller, Beavertown.



## New Attraction

**CAMBRIA COUNTY**—Not since a bear walked down Christoff Street in Nanty Glo has an animal caused as much commotion as did the albino starling sighted on the same street in May. The young bird learned to fly before most of its siblings because amateur photographers were constantly approaching the bird to get close-up shots. After the bird eventually got used to the harmless clicks of the camera shutters, it had no problem finding food because of all the bait the novice wildlife photographers set out. One photo shows the white starling attacking a rabbit that wandered too close. —DGP Lawrence A. Olsavsky, Colver.

## Heavy Equipment

**ADAMS COUNTY**—Did you ever hear of a caterpillar rescuing a rabbit? It happened recently in York. At the Caterpillar Tractor Company, a rabbit fell through a heavy steel grate into a cone-shaped pit which has a conveyor belt at the bottom for moving coal. It was too difficult and dangerous for a person to climb into the pit. However, a plant foreman and three employees, one of whom was Deputy Dave Schriver, prevailed. They ordered a Caterpillar 996 front end loader to the scene. It was used to lift up the grate and then lower a man into the pit to rescue the rabbit. —DGP Larry Haynes, Gettysburg.

## Strong Sentiments

**BLAIR COUNTY**—The Game Commission's training school in Brockway was closed in August. I understand how the new facility in Harrisburg will be less expensive to maintain and operate, but I was saddened when the decision to move the school was announced. I spent nearly a year of my life at the Jefferson County site. That place nurtured me through a seemingly endless year away from home and family as I prepared for a career in wildlife conservation. Progress is inevitable, and we will certainly carry on, but it was with a heavy heart that I, and I'm sure many fellow officers as well, said goodbye to Brockway. — DGP Steve Kleiner, Hollidaysburg.



## On The Right Track

**ADAMS COUNTY**—During the 23 years Deputy Glen Herring has been faithfully serving the Game Commission, he has retrieved many lost or orphaned fawns. This year, however, a fawn found him. Glen returned home one day last summer and found a fawn had wandered into the corral behind his home and was attempting to nurse from Glen's horse. Glen was amused. His horse was not. The fawn could not have found a safer shelter, but he had lots to learn about where to find a good meal. — DGP Mike Dubaich, Aspers.

## A Mix-Up

**BRADFORD COUNTY**—When Joe Foust, Granville, was cutting hay this spring, he ran over a nest and broke half the eggs. He asked me if he could try to hatch out the remaining five. Not knowing what kind of eggs they were, he was anxious for them to hatch. Several weeks later Joey called to report he had four ducks and one turkey. Now, you may think this is unusual, but those of us in Bradford County who know Joey Foust. . . — DGP William Bower, Troy.

## For A Long Time

**ERIE COUNTY**—Earl L. Peebles has been a fireman safety and hunter education instructor since 1952, but he recently retired and is moving to Idaho where he will teach hunter education with the Idaho Fish & Game Department. Our loss is their gain. On behalf of the Game Commission and, more importantly, the hundreds of young people he has introduced to the world of hunting, thanks Earl, for a job very well done. — DGP Andy Martin, Erie.

## Different Tastes

**CLARION COUNTY**—At the recent Town and Country day held at the Joseph Greible farm, Lucinda, the Game Commission displayed a collection of furs from furbearing and game animals. Deputies Kline, Gilford and I found it interesting that children liked the skunk and opossum pelts most; women — of all ages — chose the mink and sheared beaver, and men preferred the deer and bear hides. — DGP Gordon Couillard, Clarion.

## Bright

**POTTER COUNTY**—When a neighbor saw one of the Game Commission's new vehicles, her first comment was, "I like the color. It sure does stand out. But I thought you guys were pushing blaze orange, not blaze green." — DGP Dick Curfman, Coudersport.



## Young Hunter Ed Shooters

# Win National Titles



**SENIOR GRAND CHAMPION** team winners, front, flanked by coaches Paul Taylor and Larry Valentine, are: Russ Byerley, Jamie Sherman and Mike Wheeler; rear: coaches Shayne Hoachlander and Brad Swanson, team members Kary Valentine and Mickey Ruland.

**T**WO SKILLED GROUPS of young Pennsylvania sportsmen won top honors at the NRA's North American Hunter Education Championship Competition at Camp Lejeune, North Carolina, in late July.

Seventeen outstanding teams from the U.S. and Canada took part in the four-day event. Representing Pennsylvania were a Junior team from Troy and a Senior team from Albion. Each won the gold medal for best overall performance. The two teams earned their way to the national meet by winning the Pennsylvania Hunter Education Shooting Championship at the Irem Temple Country Club in Dallas in May.

Ed Sherlinski, Information and Education Officer for the Game Commission's Northeast Region, coordinated the Dallas event.



**JUNIOR GRAND CHAMPIONS** are, front: Jeremy Castle and Tod Everts; rear: David Hunsinger, Jay Cole, and Kelsey Burgess. Bill Angove, left, coached this team with the help of Deputy Charles Fox, right, of Bradford County. The youngsters were overjoyed with the outcome of the championship competition—as were their coaches.

# 1985 Game Take Survey

By William K. Shope

PGC Wildlife Biologist

SINCE 1971, the Pennsylvania Game Commission has sampled 2-4 percent of the hunting license buyers to obtain information to use in estimating small game harvests. Following the 1985-86 seasons, 22,304 hunters were contacted, and 12,562 returned questionnaires. Total harvest estimates based on these returns appear in Table 1, along with the 1984-85 harvest estimates.

Squirrels were again the number one game animal in terms of total harvest. Rabbits, which are hunted by more people, ran a close second, as they have for a number of years.

The most dramatic harvest difference between 1984 and 1985 was for turkeys. The total harvest increased by 27 percent, despite an apparent drop in

turkey hunters. The most likely reason for this increase is the wider range and improvement in turkey populations across the state.

Rabbit and dove harvests also increased in both total number and average take per hunter.

Harvests during the late season following Christmas make a significant contribution to the total take of rabbits, grouse, and squirrel. In 1985, about one-fourth of the rabbit and grouse were taken in the late season, compared to 14 percent of the squirrels.

Except for raccoons taken by hunters, the fur-bearers harvested in 1985 dropped significantly from 1984. This is probably due to lower prices and fewer participants.

Table 1

A comparison of the 1984 and 1985 small game and furbearer harvests, the number of hunters pursuing various small game species, and their average harvests.

	1984		Average	1985		Average
	Estimated Harvest	Hunters		Estimated Harvest	Hunters	
Turkey, Spring	9,723	209,717	0.05	14,197	214,331	0.07
Fall	15,844	322,347	0.05	18,217	298,055	0.06
Total	25,567	532,064	0.05	32,414	512,386	0.06
Rabbits	1,939,390	626,892	3.09	2,137,737	619,220	3.45
Grouse	475,960	419,367	1.14	511,271	423,393	1.21
Squirrels	2,256,311	525,670	4.29	2,428,683	528,599	4.59
Pheasants	512,301	505,694	1.01	507,230	536,049	0.95
Woodcock	170,296	120,643	1.41	137,183	100,270	1.37
Quail	24,984	29,428	0.85	20,274	29,134	0.70
Dove	1,402,180	152,243	9.21	1,443,109	150,904	9.56
Geese	64,452	66,406	0.97	56,233	62,742	0.90
Ducks	224,728	76,167	2.95	178,013	66,939	2.66
Hares	13,989	27,133	0.52	14,749	25,141	0.59
Raccoons	495,106	49,870	9.93	557,989	34,514	16.17
Muskrats	621,111			362,074		
Red Foxes	75,532			68,302		
Gray Foxes	66,995			40,476		
Opossums	339,294			237,493		
Skunks	72,050			48,847		
Minks	23,627			13,932		



# young artists page

**Red-tailed Hawk**  
Kevin Rupp  
Vandergrift, PA  
Kiski Area High School  
Grade 12



**White-tailed Deer**  
Tammy Tyler  
Lenoxville, PA  
Mountain View  
Junior High School  
Grade 8



# Deer Don't Always Cooperate

**E**VEN BEFORE buck season begins, I'm a deer hunting widow. Copies of all the major outdoor magazines, plus an assortment of deer hunting annuals, appear in the house and I lose any live companionship I might have had. Breakfast socializing becomes limited to a few answering grunts from behind the page across the table. I find I can't sleep at night because someone wants to read just one more whitetail story before he turns off the light.

Being a deer hunter myself, I get my turn at the magazines while he's at work and, I must admit, I wouldn't be very good company over lunch. But I have a complaint with the "how to bag your buck" articles I read every year. Most of them can be reduced to the same bits of advice: hunt where the deer are, be quiet and watchful, and have the gun loaded.

## The Odd Ones

The suggestions are good ones, and they apply to what the average white-tail will do most of the time. But what about the odd one, the deer that does something so unexpectedly out of character it upsets all our hunting strategies? How can we hunters deal with the curveballs? So far, none of the experts whose writings pass through our home each year has given me an answer. But I can give them a few more questions.

Such as, what about the deer with the cottontail complex? Deer are supposed to be creatures of the forest. We imagine the regally antlered trophy of our dreams in a classic stance in the tall timber. Even if we know that the big rack is just as likely to bound out of the brush, what do we do with the deer that jumps up from a weed field? That's the place for rabbits.

Yet nearly every hunting season, as I crossed fields incidental to going someplace else, I have bumped bedded deer.

In many cases the weeds weren't tall and tangled, but little more than high grass. What were deer doing there, with the protection of the woods all around? But they were well hidden because I never saw them until they bolted. Very little is needed to conceal a bedded deer, especially if it lays its head on the ground. Even antler tines will blend with the bone-dry weeds. Walking weed fields in deer season, gun at ready as if to kick up a cockbird, isn't such a bad idea.

By the beginning of antlerless season, it's assumed that all the deer must be "way back in," pushed there by two hard weeks of buck hunting. I have taken deer by going the extra mile, but lately I'm rethinking whether the effort is necessary.

It has been a tradition for me to trudge several miles out the gated road from a game lands parking lot and to claw through a laurel thicket to my stand. But there have been too many years when my driver, who'd already filled his tag, returned to the car for coffee and found deer standing unconcerned in the middle of the parking lot. After long mornings of shivering in the snow and listening to distant rifle fire, my posts in the future may be near the road where my helper may enjoy a shorter drag.

## Another View...

by Linda Steiner



**A TROPHY BUCK** rarely appears in this classic stance during hunting season. His normal behavior is more likely to seem oddball to a beginning hunter.

One of the best ways to locate deer, the writers tell us, is to find their favorite food sources—acorns, corn and apples—and then wait until dinner time. But I’m seeing evidence of two more whitetail preferences I can’t explain: mud and sawdust. I have finally realized that the spoke-like deer trails that lead from mucky water holes and rotting sawdust piles are not accidents. Mineral concentrations or whatever, I know the next time I have a stand near one of these odd hot spots won’t be by accident either.

I have seen the words “wary whitetail” together so many times that just saying one triggers thoughts of the other. Sometimes, though, a deer’s unwariness is just as effective at spoiling a hunting scheme. What about the buck that beds along the highway, or behind the dog run, or with the cows? Or the one that prances unscathed through the yard at camp, where the smell, sights, and sounds of hunters should have kept him at a distance? It’s strange that a deer’s lack of caution, where it’s so unexpected, can be such an effective shield.

Many times I have pussyfooted through the woods, easing each foot down feline-silent, careful not to snap twigs and barely crinkling the leaves, and still had deer spook ahead of me. That was okay, though, whitetails are wary. But what about the times I have crunched through the dry leaves,



cracking branches underfoot, not expecting to see deer with all the tumult, only to turn and find a buck watching me or, more surprising, trotting toward me?

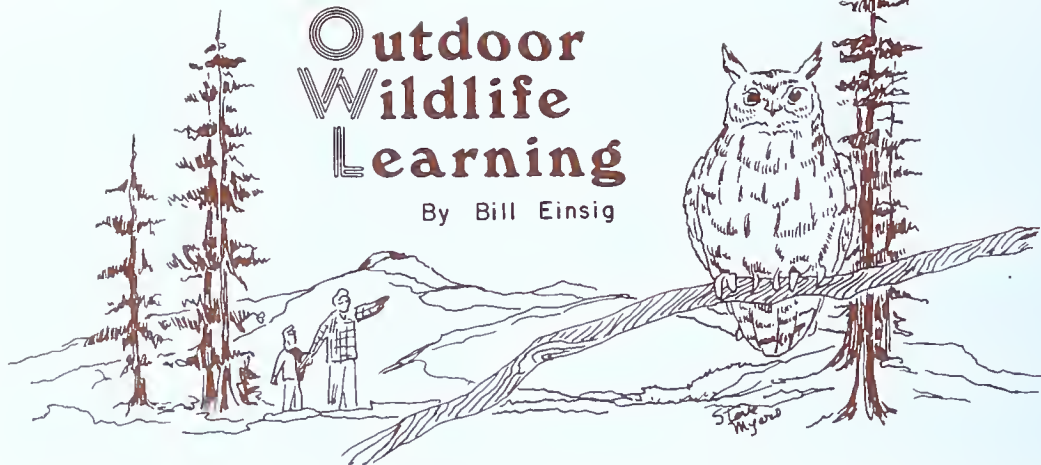
Some of this queer behavior might be the result of rutting season. The bucks may have mistaken my racket for other deer, possibly does running or bucks fighting, and been anxious to investigate. Deer know, of course, that hunters sneak, they don’t make such a din, so there was no need to run away. To the deer, I was the odd one out, the nonconformist. They were as unaroused by my unusual behavior as I was at theirs. This is my guess, anyway. But this “paper widow” will keep watching all the hunting issues that come in for a better explanation—when she gets her chance at them.

## 4.25 Million Seedlings

Wildlife will soon benefit from over 4.25 million tree and shrub seedlings planted this year throughout the state to improve habitat. The seedlings were produced at the Game Commission’s Howard Nursery. More than half were planted by Game Commission personnel on State Game Lands. In addition, seedlings were planted on Forest-Game, Farm-Game and Safety Zone projects, where public hunting is permitted by private landowners. About half a million seedlings were sold, at minimal cost, to individuals through the Planting for Wildlife program.

# Outdoor Wildlife Learning

By Bill Einsig



**H**ISTORY records the use of holiday greens at winter solstice in many cultures at many times. They were symbols of the coming Spring and a celebration of lengthening days. The use of actual trees in these ceremonies probably stems from Northern European tribes in the 8th century. Much later, the custom of decorating a tree for the Christmas holidays was continued in the Colonies by Hessian soldiers during our War of Independence. The custom continues and is now a universally recognized symbol of our Christmas celebration even though it lacks a Christian origin.

In a few weeks, most of our homes will boast a Christmas tree of some kind, draped with tinsel and popcorn and displaying ornaments collected or made during each family's lifetime. Whether it is a real tree that's been cut or a live one brought inside for only a few days or, an artificial tree, it becomes a frame where memories of past holidays are displayed.

Let's look beyond the ornaments for a moment, to the tree itself. What is its history? What does it have to tell about the world in which we live? How can we learn from it?

## What Kind of Tree Is It?

Most Christmas trees belong to one of a few evergreen species. Scotch pine is probably the most popular Christmas tree, with Douglas fir being second. The Douglas fir is not a true fir at all, but a member of a closely related genus to the true firs. Douglas firs bear cones that droop below their branches; true firs have erect cones. True firs grown and sold as Christmas trees include balsam, fraser, and concolor (or white) firs.

White pines are also popular. Their long needles grouped in bundles of five and their soft touch make them easy to iden-

tify. Blue spruce and Norway spruce are sold but neither is as popular as the firs and pines.

Use the Christmas Tree Key to identify your tree this year. Begin the key by reading descriptions 1 and 1a. Decide which describes your tree and follow the number at the end of that line to the next description. Continue to read each pair of descriptions you come to and decide which is true for your specimen. Within just a few steps, you'll find the name of your tree.

*Find out more about these species. Where do they come from? Are they important for other uses?*

Most of our Christmas trees are grown in plantations specifically for the Christmas tree market. But each species has a story to tell. White pines, for instance, were once the dominant trees throughout Pennsylvania forests. For a century and a half, white pines supported the vast lumber and tanning industries that helped shape Pennsylvania as we know it today.

Blue spruce, on the other hand, grows naturally in scattered clusters at high elevations in a few Western states. It has never been an important timber tree but has found popularity as an attractive blue-green ornamental.

*Conduct a survey to determine the most popular species of Christmas tree in your area.*

This is an easy science project for school classes. Students can use the Christmas Tree Key to identify their tree species during the holidays. Tally the results and make comparisons. Some teachers may prefer to have students bring a small branch from each of their trees into class where they can use the key together.



Which species is most popular in your classroom? Are results the same for other classrooms? What percentage of families use artificial trees? How many buy cut trees and how many buy trees that will be planted later?

*Does the tree's growth tell you anything about rainfall?*

Conifers grow a whorl of new branches each year. If you count the number of these whorls—or layers—of branches, you'll have a fairly close estimate of the tree's age. Also, the distance between the whorls indicates how much growth took place the year that section of the trunk grew as the top of the tree.

Short lengths between whorls probably mean poor growing conditions, while longer trunk sections indicate favorable conditions. It's possible to correlate rainfall data with each trunk section. You'll need to know where the tree was grown and its age. You'll also need monthly rainfall totals for the years the tree was growing. Obviously, this project is best done with trees grown locally.

*What happens to your tree after Christmas?*

Balled trees can be planted after Christmas and continue to grow and benefit the landowner. In my own yard there is one for the first Christmas of each of our children. I'm not sure if the trees or the children are growing faster!

Not everyone, however, has room for an additional tree, and many choose not to gamble with the extra cost and care living trees demand. Cut trees are more convenient and popular for those reasons.

Even cut trees can have some more enduring use than to be simply thrown out with the garbage on January 2. Some families move their trees outside and festoon them with seed cakes, crackers, suet, and peanut butter concoctions for birds and small mammals. In the right location, such a "food tree" can bring winter animals close enough to watch from a kitchen or classroom window.

Some landowners with more acreage use discarded Christmas trees for wildlife cover. Stack them in piles and leave them for rabbits, mice and small birds.

## **CHRISTMAS TREE VIDEO, FREE!**

"The Messenger of Life: The Story of

the Real Christmas Tree" is a 27-minute film in VHS format. It describes the growing Christmas tree industry and traces the production of millions of trees on plantations across the nation.

A teacher's manual accompanies the film and includes many practical activities useful to teachers in varied disciplines. A few lessons focus on the industry itself and the production of marketable trees. Most of the activities are more general, however, and reinforce some of the most basic concepts teachers present about plant growth. Almost every teacher will find something useful, especially for those strained moments just before Christmas when all the students want to quit and go home.

The film is available from the National Christmas Tree Association, 611 E. Wells St., Milwaukee, WI 53202.

### **A Key to Christmas Trees**

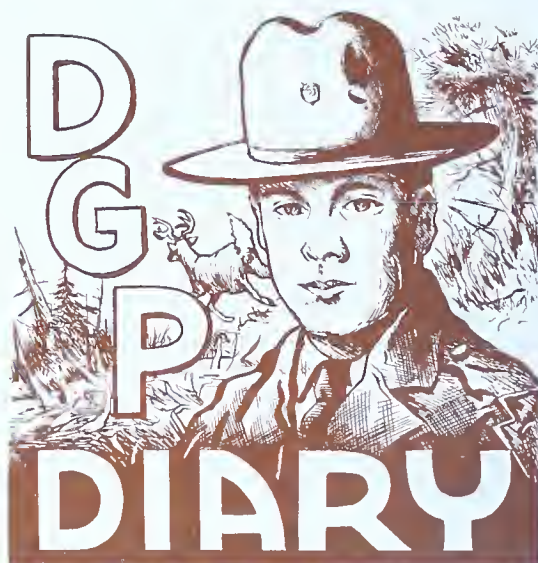
1. Leaves in bundles of 2 or 5. (Go to 2)
  - 1a. Leaves single, attached directly to woody stem. (Go to 3)
2. Leaves in bundles of 2, 1.5" to 3" long, twisted. (Scotch Pine)
  - 2a. Leaves in bundles of 5, 3" to 5" long, flexible, soft to touch. (White Pine)
3. Leaves 4-sided in cross-section, stiff, sharp-pointed, grow from tiny woody stalks. (Go to 4)
  - 3a. Leaves flattened, points usually rounded or blunt-pointed, with or without stalks. (Go to 5)
4. Leaves blue-gray, stiff, very sharp points. (Blue Spruce)
  - 4a. Leaves dark green, blunter points. (Norway Spruce)
5. Leaves 0.75" to 1.25" long, with short woody stalks. (Douglas Fir)
  - 5a. Leaves without stalks. (Go to 6)
6. Leaves with no citrus smell when broken or crushed. (Concolor Fir)
  - 6a. Leaves with citrus smell when broken or crushed. (Balsam or Fraser Fir: These species are similar and are distinguished by differences in cones which are not likely to be present on Christmas tree specimens.)

**M**ENTION the word December to any Pennsylvania sportsman and chances are the first thing he'll think of is deer hunting. And why not? The Keystone State's whitetail herd numbers around a million, of which nearly 300,000 are harvested each year. There is no better place to go in the northeastern United States for those who are serious about deer hunting.

For a conservation officer, December is a month of long and irregular work hours, short nights, and precious little time with the family. When I'm asked at the end of a season if I bagged a whitetail, all I can do is chuckle. I haven't hunted deer a single time since taking the oath of office to become a game protector. I've been too busy enforcing the Game Law.

*December 1*—Since late summer, we had been having a problem with deer poaching along the Delaware state line. At 2:30 this morning, I met Deputy Wayne Swinehart and we staked out a field right in the heart of our problem area. We had been parked for about 15 minutes when a pickup truck passed slowly by. We watched until it was out of sight, and were somewhat surprised that its occupants hadn't thrown a light into the nearby field. Ten minutes later, the same truck returned. Again, its occupants failed to do anything unlawful. When the vehicle returned a third time, we were sure something was amiss, but we still didn't have probable cause to stop the truck and conduct a lawful vehicle search. Wayne and I were waiting for the vehicle to make its fourth pass when a rifle shot boomed on the ridge behind us. We sped off in pursuit, expecting at every turn to see that old truck with its occupants loading a deer. An hour later, after fruitlessly searching the entire valley, we returned to our stakeout position where the rest of the morning was uneventful. After patrolling for a couple of hours after sunrise, I dropped Wayne off at his car and then made one more pass through the valley. As I neared the field we had just staked out, I spotted a knot of turkey vultures feeding on something in the grass. Closer examination revealed that their banquet fare was a recently shot button buck.

It appeared the whitetail had been dropped in the early hours of the morning, just prior to the beginning of our surveillance. More than likely, it was the occupants of the pickup truck who had done the shooting. The frequent passes were



**By Keith Sanford**

**District Game Protector  
Chester County**

probably attempts by the poachers to get up enough courage to stop and retrieve their illegal kill. Fortunately for them, they didn't.

*December 2*—At sunrise on the first day of buck season Deputy Albert Lange and I met Maryland C.O. Ron Harris on the state line near Nottingham. Saturday, while patrolling on Maryland's opening day, I found a tree stand which was heavily baited with apples. I thought it was in Maryland, but I wanted Ron's opinion. As we closed in on the bait pile we could see a blaze orange figure perched in the nearby platform. As it turned out, he was a Maryland hunter, just inside the Maryland state line. Baiting for deer is legal in Maryland, but only on private land. Neither Ron nor I had a violation. We continued to patrol the area on foot. Our diligence was rewarded when I caught a Maryland gunner hunting for deer in Pennsylvania. If he'd had a nonresident license, he would have been within the law. He didn't.

After leaving Ron, Albert and I continued to patrol throughout the district. We checked several lucky hunters with bucks and all were in full compliance with the regulations.

Near the end of the day we found several hunters in Newlin Township. We wrote up two of them for late hunting and blaze orange violations. The infractions that bothered us the most, however, were those



involving two 14-year-old boys we found hunting without adult supervision. Their father was there, but he was sitting in the truck while the kids scouted the woods. He didn't seem at all concerned about the violation. The Game Law requires that the adult accompanying a minor must be close enough to control the actions of the minor. How this man planned to supervise the youngsters from inside the vehicle, I don't know.

Arrived home at 9:30 p.m., and then spent another hour completing prosecution reports and returning phone calls.

*December 3*—Spent the entire day patrolling the district. I found relatively few hunters afield and recorded no violations. The evening hours were spent doing paperwork and returning calls.

*December 4*—Patrolled throughout the district and didn't encounter any violations until I was heading toward home. The sun had been down a full hour when I passed a vehicle travelling in the opposite direction, the driver of which was working a spotlight in an open field. I turned my truck around, followed for a few minutes, and then pulled him over for a check. In a gun rack was a centerfire rifle. I informed the driver that the law prohibits anyone engaged in spotlighting to be in possession of any implement which could be used to kill a big game animal. He explained that the violation was unintentional and settled his fine on a field receipt.

*December 6*—Patrolled throughout the district from morning until early afternoon. In the evening, met with Deputy Cary Haupt and investigated information which we had received on three different violations. Of these, only one proved to be a valid complaint. It involved a pair of dogs which had been seen chasing a deer on the opening morning of buck season. At one point, the canines actually had the whitetail backed up against a streambank. If our witness hadn't been there to scare the dogs off, the deer probably would have been killed. We presented this information to the owners of the animals and informed them that our witness was willing to testify if necessary. They opted to pay the fine on the spot and assured us that their pets would be kept under control in the future.

*December 7*—The first Saturday of buck season is normally a busy day. Local

hunters who didn't score in the mountains at the beginning of the week and those who opt to gun close to home throughout the season are out en masse. This first Saturday was no exception. Deputy Jim Valentino and I spent the day patrolling in the Chadds Ford, Kennett Square, and Landenberg areas. Of all the hunters we checked, only one was in violation and that was for failing to wear the required amount of fluorescent orange.

In the evening, Jim and I met with the remainder of the deputy force at the State Police barracks in Avondale. In addition to issuing several permits for roadkilled deer, we collected the fine monies for a variety of offenses: littering while hunting, transporting an untagged deer, hunting without proper licenses, and killing a doe by mistake.

Before calling it a day, Jim and I patrolled for spotlighters in Pocopson and West Bradford Townships. All was quiet in the areas we worked.

*December 10*—Deputy Albert Lange again made the long drive from Philadelphia to assist me in this county. The day was relatively uneventful until we received a radio call from the Reading Office. The dispatcher informed us that an individual in Pennsbury Township had observed two hunters dragging a pair of deer off an estate in the Chadds Ford area. His suspicions were aroused when he noticed that neither was displaying a hunting license and that their truck bore a Delaware license plate. Thinking quickly, he copied the tag number, wrote down a description of the vehicle, and contacted the Game Commission.

Doubting that the deer had been taken by hunters with the proper licenses, but unable to investigate the matter ourselves, Albert and I contacted the Delaware Division of Fish and Wildlife and asked them to check the address where the suspects' vehicle was registered. When an officer arrived, the truck was no where to be found and the individuals he spoke to knew nothing of the incident or the vehicle. Were the truck tags stolen or was someone lying? We'll never know. Another unsolved case to go with a frustrating day.

*December 14*—Spent the morning with Deputy Jim Valentino, patrolling and field checking the few deer hunters that were about. In the afternoon, assisted the State Police with an investigation involving a

hunting related incident in Kennett Township. An individual had shot a deer on private property and when confronted by the landowner, began to use some abusive language. The hunter hadn't violated any Game Laws, but was charged for trespass and harassment under the Crimes Code by the State Police. Cooperation such as this between our two agencies has allowed us to resolve many complaints and problems over the years.

I ended the day at the State Police Barracks in Avondale. Deputy Harry McKinney had two individuals who wished to settle Game Law violations on field receipts. One had killed a deer in the special regulations area with a rifle, costing him \$200; the other had been apprehended transporting an untagged whitetail.

*December 16*—Deputies Horace Steffy and Albert Lange, along with Police Officer Lewis Wilson and me, started the antlerless season by assisting the staff of the Nottingham County Park with hunter registration for their two-day controlled deer hunt. Once everyone was signed in, Albert and Horace left the area and began a full day of patrol while Lew and I remained on at the park.

Late in the afternoon, with activity in the park slowing down, we decided to patrol some of the adjacent farmland in West Nottingham Township. We hadn't gone far when we spotted a group of four hunters emerging from a hillside woodlot. After checking them, one of the hunters asked me about an individual whose hunting license privilege was currently revoked for having possessed a doe in closed season. The man inquired because he had observed the individual along with another person deer hunting earlier in the day. As we stood talking, another member of the hunting party cut our conversation short by exclaiming, "There they go now!" Lew and I covered the quarter-mile between the duo and ourselves in record time. As a result, we cited one individual for hunting on revocation, his brother for lending him a hunting license, and his partner for failing to wear blaze orange and for hunting antlerless deer without an antlerless deer license.

We finished the day at the park where a total of 13 antlerless whitetails were harvested by 30 hunters.

*December 17*—Although this was the second and final scheduled day of doe

season, I spent most of it at the county courthouse in West Chester. When Trooper Hoak apprehended the two individuals on December 9 for hunting with rifles in a shotgun only area, he had seized their weapons as evidence. Their attorney felt that the commonwealth didn't need the firearms to prove its case and was, therefore, seeking a court order for their return. After a lengthy debate, the judge ruled that the firearms should be given back to the defendants, but after they were photographed for future court proceedings.

After leaving West Chester, Officer Lew Wilson and I spent the remainder of the day patrolling in East and West Bradford, Newlin, and East and West Nottingham townships. We found the hunting pressure to be extremely light.

At dark, I stopped by Nottingham Park to check with Deputy Horace Steffy who had been there since dawn. I wanted to see how the second day of the controlled hunt had gone. As in years past, there were no hunting accidents and hunter behavior was excellent. The 30 sportsmen who hunted the park today bagged a total of four deer; an interesting statistic for those people who feel such hunts are "fish in a barrel" affairs.

*December 21*—Started the morning at the Coatesville police station where I settled the fine on the fox hunting violation and issued several permits for roadkilled deer.

Spent the remainder of the day patrolling for antlerless deer hunters. I found a good number of people afield taking advantage of the season extension, and checked several nice whitetails.

*December 23*—Met Trooper Ed Hoak at the Avondale Barracks this morning. After photographing the firearms which were used in the December ninth violations, I completed the appropriate citations and filed them with District Justice Eugene DiFilippo in Kennett Square.

The remainder of the day was spent patrolling for deer hunters in the special regulations townships of Pennsbury, Kennett, and Birmingham.

*December 26*—In an effort to further reduce the overwintering population of whitetails in Nottingham Park, the county elected to permit antlerless deer hunting during the post Christmas flintlock season. Deputy Steffy and I were on hand for



the season opener and assisted with hunter registration. Afterwards, we patrolled in and around the park as well as in East Nottingham, Elk, and Franklin townships.

*December 27*—Deputy Horace Steffy and I again started the day by registering flintlock deer hunters for the Nottingham Park hunt. As soon as we were done, we headed to Oxford for a hearing in front of District Justice Donald Brown. The case involved the individual we had cited last month for trapping muskrats in closed season. We presented the facts as we had found them and were pleased when Judge Brown found the defendant guilty. In addition to the fine imposed by the court, the Game Commission revoked his privilege to hunt and trap within the commonwealth for a full year.

We completed the day by patrolling in Elk, Franklin, London Britain, New Garden, and East Fallowfield townships for small game, goose, and muzzleloader deer hunters.

*December 28*—Met Deputy Harry McKinney this morning in Nottingham. Together we helped with registration on this, the final day of the park's flintlock deer hunt. During the three days the area was open to black powder aficionados, 45 hunters participated, but only one deer was taken. Not very impressive considering we were hoping the harvest would be around 15 animals.

Later, I settled several license violations with the defendant Deputy McKinney apprehended last month on the opening day of Maryland's deer season.

After patrolling in West Nottingham Township and checking several rabbit hunters, I headed to Gum Tree to meet Deputy Cary Haupt. Early one morning during buck season, a van was observed on West Glen Rose Road in Highland Township. According to our witness, the driver of the van stopped the vehicle, he and his passenger jumped out, and both ran to the edge of the road where they fired several shots at a deer standing in an adjacent field. Not only was the act illegal, but it was also extremely dangerous. Fortunately for us, the witness obtained the van's license number and we were able to trace it. With this information in hand, Cary and I drove up to Honeybrook where we hoped to interview our chief suspect. He wasn't at home on this visit, but we were

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## **GAME NEWS**

**For a Friend . . .**

able to catch up with him in early January, 1986. He admitted to committing the violation and settled the fine with us on a field receipt. He refused, however, to give us the name of the other individual who had been involved. It's thoughtless, irresponsible acts like this that will someday restrict everyone's privilege to hunt.

I hope you've enjoyed reading about the activities of the conservation officers in district 6-15-2. Of course, everything we did during 1985 wasn't included in the pages of this diary. What I strived to do was present the highlights of the past year while at the same time giving you an overview of what a Pennsylvania game protector does.

I hope that I've impressed upon readers just how demanding and at times frustrating the law enforcement part of our job can be. As wildlife officers, we are required to abide by the same court decisions and rules of criminal procedure that dictate how local, state, and federal law enforcement officials perform their duties. Furthermore, many game law violations go undetected because of where they take place, and cases go unsolved due to insufficient evidence and witnesses who refuse to come forward. When it comes to numbers, game wardens are relatively few and far between. On the average, a Pennsylvania C.O. is responsible for a 350 square-mile area. And we're lucky—we have a deputy force to help. In the West, where an officer may find himself patrolling on horseback or in a kayak, the nearest backup may be a two-day ride or paddle away.

Game Protectors, the backbone of every state, federal, and provincial wildlife agency, are in the profession because they believe in what they are doing. High salaries, plush offices, and large expense accounts don't come with the position. To do our job, to do it well, we need support from a public that understands and appreciates what we are trying to accomplish. If I've given you those two things, I'm pleased.

**A**N AVID birdwatcher keeps a life list, a record of all the species he has seen. I suppose I qualify as a second-rate birdwatcher, not bothering with a list. For bears, however, I keep one. It is up to 24, Pennsylvania black bears all, strictly from the wild.

I collected my first sighting in late spring, 1972. Three friends and I were hiking across State Game Lands 75 in Lycoming County. The trail curved downhill. The breeze was in our faces. We rounded a bend and there, on a sunlit hillside in ferns up to his belly, blacker than a crow's beak, blacker, it seemed, than anything I'd ever seen in the woods, was a bear. He was chomping on something down at ground level, and every few seconds he would raise his head and sniff. We watched, undetected, as he fed. I say "he" because the bear looked big and because it was all alone: male bears, or boars, are usually bigger than females, or sows; and sows, in the spring of the year, are usually accompanied by cubs.

My first bear! I felt like I'd just won a raffle, or had a birthday. A bear, in the woods, doing bearish things. My pack felt light as we went on down the trail.

Another mile, another bend in the path, and there: a sow and four cubs.

We practically skidded to a stop, like cartoon characters. The sow grunted, and the cubs—the size of beagles—scrambled up a tree. They got about six feet up, two on each side of the trunk, and stared. Just as they were the first wild bear cubs we had laid eyes on, so too, in all probability, were we the first humans they had ever seen.

On the sow's neck and shoulders the fur stood on end. Her thick round ears lay back against her skull. She curled her lips and chattered her teeth—a sound like boots treading on glass. The edges of my vision blurred. In the center were five black essences. I undid the waistbelt of my pack—dimly planning to ditch it and run if she charged—and slowly stepped back. We retreated, en masse, around the bend. A half-hour later, when we eased back down the trail, the bears were gone.

# Thornapples



*Chuck Fergus*

I'll admit it: bears fascinate me. Maybe I identify with them. A bear walks in plantigrade fashion—flat-footed—as does a human. Sometimes a bear stands on its two hind feet. Skinned, a bear shows a musculature that eerily resembles a human's. It is a top predator in the woods. It is reclusive in the extreme. A lot of people, veteran outdoorsman included, have never seen a bear. I guess I've been lucky.

Bear number 7: Again, I had a pack on my back. I was hiking the Loyalsock Trail, in Sullivan County. My companion was GAME NEWS Editor Bob Bell, whose creaky left knee would cut short our trip the next day. The bear was smallish, probably a two-year-old. We encountered it along a gravel road leading to a forest-fire lookout tower. It stared at us. We stared at it. The bear had tags in its ears. It seemed to desire something from us, possibly food. It didn't want to get too close, but it didn't want to run away, either. It plodded along, paralleling our path. Now and again it would grunt, and, as if disgusted with itself for panhandling (or disgusted with us for not contributing), it would cuff a pine seedling until the needles flew.

Bears, I've been told, are almost always looking for a meal. In the spring, after shaking off their winter lethargy, they start to eat. They eat all summer and into the fall, accumulating body



fat to sustain themselves through the next winter.

Their menu may contain the following items, and more. Carrion. Skunk cabbage. Frogs. Beetles. Grass. Strawberries, mulberries, blueberries, blackberries, elderberries. The succulent leaves of hardwoods. Mice. The roots of jack-in-the-pulpit plants. Some bears break open beehives, both for the honey, which they crave, and for the protein-rich larval bees. Bears eat corn, apples, pears. I have marked a bear's progress through a brushy field by noting the shiny gray-green undersides of autumn olive leaves, on branches the bear had torn off to get at the juicy orange fruit. Bears bulk up on mast: beechnuts, hickory nuts, acorns. Bears also eat garbage, and other leftovers that people set out for them. Some bears make a career out of consuming rich, highly nutritious human foods, and seem to grow faster, mature sooner, and reproduce earlier than bears that stick solely to natural foods.

"An obese person is an unhealthy person," says Gary Alt, a Game Commission biologist, "but an obese bear is a healthy bear. A fat bear doesn't starve during hibernation. The heavier a sow, the more cubs she'll produce and the heavier—and healthier—they'll be.

"The national average for male black bears five years old and older, in the fall before hibernation, is 225 to 285 pounds. Males of that age in Pennsylvania average 486. One bear I trapped in September weighed 650 pounds, and he was still putting on weight before hibernation. Compared by age and sex, Pennsylvania black bears are heavier than Montana grizzly bears. The grizzlies have the potential to grow larger, but they don't get the food."

Bear number 8: I was driving in Cameron County when a black blur crossed the road in front of the truck. My single clear impression was that the bear's rear paws planted themselves in front of the forepaws with each galloping bound.

Bear number 9: The first I saw after

building our house in the woods. I was driving into town to pick up some 20-penny spikes when, in broad daylight, a big bear sprinted across the road in front of the preacher's house.

Since moving to the woods, we've seen a good many bears and lots of bear sign. I have not kept a formal list of the sign, which includes droppings, whose undigested contents—raspberry seeds, yellowjacket heads, mouse femurs—imply what the bear has been eating. After our house foundation was laid, I found bear tracks all around the perimeter. One time in grouse season, I filled my game pouch with juicy apples off an old wizened tree in a cover near home; the next day when I went back for the rest, there were none—only fresh claw marks up the trunk. A suet feeder torn down, a cider jug (left outdoors overnight because the refrigerator was full) tooth-punctured and drained, a trash barrel peeled open, black hairs stuck in the gate pike.

### Scratching at the Door

We were reading one night when we heard scratching at the door. Then scratching at the window. I flicked on the flashlight and confronted, at a distance of about six inches, a broad black nose and two agate-bright eyes. The paws of bear number 10 lay flat against the windowpane. My wife sprang to the opposite side of the woodstove. The bear, its curiosity apparently satisfied, ambled away.

If a bear wrecks too many beehives (or wallows in too many wading pools, or peers into too many windows), a Game Commission employee may come and catch it in a culvert trap, hook the wheeled trap onto a vehicle, and cart the bear to a wilder place. Biologist Alt, who has studied bears since 1974, found 40 miles to be the limit: less than that, and the bear usually would be back within two weeks; much more, and it wouldn't return. Fortunately, even the bears that returned seemed chastened by the experience and rarely got into trouble again. Once, Alt released a bear and followed



behind on foot. The bear poked along for a quarter-mile or so, then stopped, stood rigidly, and held its head forward and level with the ground. It planted its hind feet and sidestepped with its front. It pivoted, as if its body were a compass needle. After two complete circles, it headed straight for home.

About two years ago, we were hiking up a wooded hollow several miles from our house. My wife and I spotted bear number 11, a small fellow, preceding us up the path; we let him get on ahead. Then we spied a bigger bear on the hill. He was plunked down on his behind, now and then sniffing the breeze, drowsing off between these brief bouts

of vigilance. Finally he roused himself and headed down the slope, which happened to be straight toward us. His glossy coat rippled in the sun. He blinked his small eyes. I watched him grow larger in the binoculars, but before I could get too jittery he turned and angled back the way he had come.

On up the trail, we came upon the small bear again. Startled, he raced for a tree. He didn't climb limb-by-limb, but rather took the tree in one spectacular, rushing bound: legs pumping, claws hooking, breath whooshing, in about four seconds twenty feet up. From his perch, he glanced at us nervously out of the corner of one eye.

### 13 through 15

Later that afternoon, we overtook bears 13 through 15, a sow and two yearling cubs the size of Labrador retrievers. The sow had her feeding technique down pat. She would reach out, hook the far rim of a rock with her claws, and pull it toward herself, overturning it. Then she would gobble up the ants or grubs or salamanders thus exposed. After a time I decided to see just how timid wild bears truly are. I waited until the sow looked toward us, then took my hat off and waved it. She lit out, the cubs hot on her heels.

Gary Alt knows of no case in which a black bear has killed a human in the eastern United States in this century — although they're certainly powerful enough to do the deed. "Our black bears are very unaggressive animals," he says. "They'll do almost anything to avoid injuring humans. The reason, some theorize, is that in the past, every time a bear got out of line and hurt somebody, the locals declared war on bears, killing the offender and all of the other bears around. This eliminated the aggressive individuals from the gene pool."

Even sows with cubs are not generally dangerous. Two summers ago, five of us were hiking a dirt road through a logged-off area. We looked ahead and saw a troop of black bears advancing. Four cubs appeared from behind a rise,



walking two by two. The first pair would take a few steps, rise up on their hind legs, flail at each other with their paws, drop to all fours, and walk on. The cubs saw us. They wheeled and ran back to mother. Noticing us, she hardly bothered with a stare—just veered off to one side, herded her family down an overgrown path, and was gone.

Four cubs would be a huge litter for a sow in, say, Wyoming, but it's not unusual for Pennsylvania. The average litter here is 3.0 cubs; in most other states, it is 2.4, 2.3 or less. Female bears in Pennsylvania often breed for the first time when only two years old; elsewhere, not until they are three, four, or even up to eight years old. A sow mates every other summer. She gives birth asleep in the winter den, and the cubs—blind, nearly hairless, about a half pound and eight inches long—crawl toward the warmth of her mammaries. Nursing, they make a soft, contented sound, like chuckling.

Pregnant females are the first to den in the fall, often going in by mid-October. Bears den in rock crevices, in holes dug in the ground, in hollow trees or logs, beneath brushpiles, or right out on top of the ground. A bear does not hibernate as soundly as a woodchuck or a chipmunk, but its body temperature drops and its breathing rate subsides. It neither eats, drinks, urinates, nor defecates all winter. It sheds the outer layer of skin from the pads of its feet. (An old country tale says that a bear stays alive over winter by sucking on its paws, explaining—incorrectly—why the pads are raw and wrinkled in the spring.) In April, when bears waken, they have burned nearly a quarter of their autumn body weight, all of it fat.

Bear number 21: I was working in our woods, loading the truck with firewood, when a bear marched past on the gravel township road. He was a large bear, he walked purposefully, and as soon as he saw the truck he altered his course. He paused at the edge of the woods, looked me over, en-

tered the trees, and faded from sight.

Bears can distinguish colors—experiments with captive bears have proven this ability. They have an acute sense of hearing, and their sense of smell is legendary. Consider the woodsman's saying: A pine needle fell in the forest. The eagle saw it, the deer heard it, the bear smelled it.

One summer evening my wife and I were sitting on an old chestnut log, where we often wait for our wild tenants to show themselves. The leaves were dry underfoot, and we heard a loud rustling. Through the laurel came two black shapes, weaving left, weaving right, sniffing, stopping, shuffling. The bears fed to within thirty yards. One was a fair amount larger than the other, and we wondered if the pair might be a mother and her year-and-a-half-old cub. We watched, not moving a muscle, as they worked their way out of sight.

### New Territories

It is likely that bears number 22 and 23 would not have been together much longer. The smaller bear may have been the last of several cubs to disperse. In later summer, young males set off to found territories of their own, often traveling scores of miles. A young female does not leave her home, but rather assumes a portion of her mother's range. In Pennsylvania, a mature female ranges over an area three to five miles in diameter. A male's home is ten or fifteen miles across, encompassing the territories of several sows.

My most recent sighting, number 24, I made late last fall. By rights the bear should already have been denned, but there he was, rambling around in six inches of snow. A small bear, cautious, alert. The sun peeked out from behind clouds, burning his shape black against the snow. I was hunting deer, and I stood stockstill and looked him over. He had scented me and was wondering where I might be. I drank in the sight of him, there on the mountain, and turned to check the slope for deer. When I looked back, he was gone.



LAUBACH'S crew didn't come up empty after their Sullivan County hunt. Front row, left to right, Rickey Shires, Bob Laubach, Dan Masteller and Angie Pilla; back row, Leo O'Rourke, Norm Shires, Rich Shires and Dave Knorr.

## Collecting Trophies . . .

# OFF THE RECORD

By Keith C. Schuyler

**T**WENTY YEARS ago this month I was confined to a hospital room for three weeks while doctors chased a blood clot from my leg to my lungs. I remember getting a glimpse out a window on the first day of the antlered deer season and wishing I could be out there, even though a steady downpour all but washed out the opener.

I still had a chance to score that year though. Certain sections of the state were open to archers from the day after Christmas through January 7, 1967. But because I was on blood thinning medication which would have made even a minor injury most serious, I wouldn't go out alone, and there were

few people around with whom I could hunt. It appeared that my deer hunting was over for the season.

But when Bob Laubach, a young friend and district forester from Foundryville, learned of my problem he came to my rescue. Although he had killed his deer, he took me through deep snows up to northern Pennsylvania and drove a doe within 20 yards of me. A clean miss saved him any additional effort, although he did retrieve my errant arrow.

Bob has since been transferred and now makes his home in Mifflinburg. Fortunately, I got healthier and healthier. But that brief hunt we



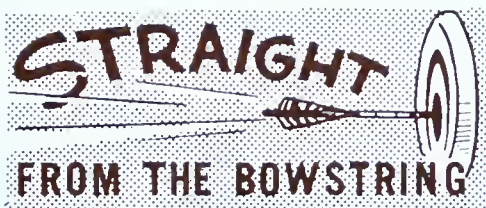
shared holds a special place in my remembrances.

All this is a prelude to a hunting invitation I received some years ago from Bob. He asked me to join a group he had been hunting with for years. They spent almost every October scouring the mountains of Sullivan County for deer.

A previous commitment forced me to miss the first two days, and by the time I arrived Norm Shires, Carlisle, had a nice doe hanging. As it turned out, that was the only kill for the week, but these fellows were hunters. In fact, they initiated me with a predawn climb straight up the side of the nearest mountain. I was glad to find they stuck to the flats for the balance of the hunt.

Rich Shires, Boiling Springs, carries a bow but spends his time driving. He doesn't want to be tempted into shooting a doe and having his season cut short. Although not a trophy hunter in the true sense, he usually holds out for an antlered deer until the last week or, on at least one occasion, the last day. Making him even more valuable as a camp member is that he likes to cook — and he's a good one. Young Richey Shires, Norm's son, towers over the rest of the crew. He hails from Newville. It took me several days to match up Shires' names with faces.

Angie Pilla, Whitinsville, and Dan Masteller, Cogan Station, are the other Pennsylvanians. Rounding out the group are a couple of fellows from Mas-



sachusetts, Leo O'Rourke and Dave Knorr, who over the years have logged enough miles to cross the country and back just getting to Pennsylvania for our annual hunts. And at this writing, they have yet to score.

Bob is another archer who holds out for an antlered deer; he'll even wait until the muzzleloader season if he has to. At camp he organizes our mountain drives.

Add me and you have a rather strange bunch. The first one of us to bring a compound bow was almost kicked off the roster. At last count, due to advancing ages and a few other excuses, three camp members were dragging wheels and cables through the

**RICH SHIRES** as camp cook undoubtedly is the most important member of the group. Here he prepares a hearty lunch in the field to refuel the nine hungry hunters.



**DAN MASTELLER, below, indicates to Angie and Dave the direction a deer went after his shot. The doe was found soon after.**



**DAVE KNORR, above, wasn't as lucky. Here, Bob Laubach removes the sacrificial shirttail which was added to the gang's 17-year collection.**

brush. And, giving no satisfaction to the purists, is the fact that the four deer taken in the past two seasons were downed by compounds.

All members don't make it every year, but when I rejoined the group last fall, they were all on deck. Most of them don't climb as many mountains as they did 17 years ago, which didn't displease me one whit. Those so inclined take early morning and late evening stands and participate in the drives in the meantime.

### **Shifting Winds**

No matter where we hunted we were plagued by shifting winds during the first three days of last year's season. We opened in Union County and then shifted to the mountains of Lycoming County. We saw deer and a few shots were taken, but, as you know, deer are naturally nervous when the winds are swirling, and pushing them around excites them even more. The wind settled down on the fourth day and Dan Masteller had a telling hit on a doe. On a subsequent drive to pick up Dan's deer, Richey Shires dropped a doe in its tracks.

These were the only deer for the week, but two out of nine figures out to a 22 percent success rate—substantially higher than the statewide rate for any year since archery seasons were established. Furthermore, some who were not successful on Laubach's hunt took deer later in the season which ups the group's success rate even more.

This is by no means a trophy hunt and nothing shot over the years will approach the record book. But it would be hard to find a more compatible bunch or guys who get more enjoyment from the archery season. Members hunt rough territory for smallish mountain deer where there are few places for hunters to hide. It takes good hunting to find deer and better hunting to get them.

A kill is only the icing on a cake made with ingredients such as fellowship, robust meals, a chance to renew acquaintances and relive past hunts. There is a growing garland of shirttails to record misses and a collection of photos to authenticate at least some of the stories.

What does all this mean to you as a reader and presumably a bow hunter?



If you have enjoyed such sojourns, you can relate to the experiences described here. If not, you might be encouraged to find access to a cabin or a tent and give it a try. Don't be misled by the many magazine articles that describe successful trophy hunts by archers who go only for the big ones. Such hunters may have their moments, but at great expense and sacrifice to themselves and, frequently, their families. Nothing here is meant to detract from trophy hunting, but shooting for a record has been known to bring out the worst, as well as the best, in hunters who make a fetish of record book trophies.

The late archery season is an excellent time to try the group hunting routine if you are among those still seeking to fill a deer tag. Your chances of taking a buck are considerably diminished because the herd has been worked over by both archers and gunners. And, some antlered deer will have dropped their head adornments by that time. Hunting is tough then, even if you have companions to move the deer your way.

The extras that accrue by joining a group will make your hunt memorable, providing you're as careful about choosing your companions as you are about where you hunt. It is not an idle saying that to know a man, hunt or fish with him.

There was a time when most hunting was done from a central location, reached by horse and wagon or railroad. There was no television or radio to distract hunters from their intended purpose.

Hunting was done for the love of the sport and the comradeship that developed among men who shared real hardships. And they hunted at a time when deer numbers were only a fraction of today's. Anything they shot back in those days rated as a top notch trophy.

And so it is today, when game is taken in fair chase with the bow and arrow. For most of us archers, record book trophies will happen only by happenstance. But, off the record, they're still nice to dream about. And some of us still dream. . . .

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# THE DECEMBER RIFLE

By Don Lewis

Photos by Helen Lewis

**"IF A MAN** can't stop a deer with one shot from a 30-30 Winchester, he has no business in the deer woods," was the acid comment from a silver-haired hunter.

"Just because you've had good luck with that popgun is no reason for the rest of us to buy your argument. You never killed a deer farther than 40 yards," was the comeback of the senior hunter of the camp.

"Facts speak for themselves, and facts show I have 22 bucks and 13 does to my credit over a 45-year span. During that time, there were several seasons my job kept me from hunting. Not too bad, if you asked me."

"My record is just as impressive with the 7x57 Mauser. There's no argument that the 7mm Mauser is vastly superior to the 30-30, but you're blind to ballistics. In the future I'll refrain from asking you about the shining example you've set for the rest of us," the aged hunter said with a grin.

"What about the famous Remington 7mm Magnum?" a younger member of the group asked. "I got a doe last year at over 300 yards, and you can't do that with either the 7mm Mauser or the 30-30."

"Youngsters should be seen and not heard," cut in one of the veterans. "Anyway, we just have your word on the distance. Any hunter using an artillery shell probably wouldn't tell the truth to start with."

The good-natured bantering went on late into the evening, but nothing was resolved. Four deer hunters circled the big kitchen table, downing cup after cup of coffee during the long argument. I kept out of the fray, but I could easily see why there was such a controversy; each of the four hunters used a different cartridge. This same argument had gone on in the past and would probably continue as long as the four relatives hunted together. I enjoyed it because this argument has stimulated deer camps for decades and helped keep the firearms industry alive over a long span of years.

There is no such thing as the best deer rifle or the best deer cartridge. Ballistics prove beyond a shadow of a doubt that practically any centerfire cartridge from a handgun or rifle will initiate the quick demise of a white-tailed deer under ideal conditions. In one sense of the word, it's pure folly to spend time and space writing on that particular subject. All of us are different. We have different views and atti-



**LEWIS** feels Remington's new Mountain Rifle and the 280 chambering make an ideal match for most big game. The rifle is also available in 270 and 30-06.



tudes, and rightfully so. What you think is terrific, I may think is worthless. That's my prerogative, but it doesn't necessarily mean I'm correct. Your opinions have just as much value as mine.

Instead of hashing this old argument around, why don't we take an inside look at a few of the deer cartridges from both the past and the present?

First and foremost, we have to understand a little about cartridge nomenclature. The figures can be confusing. Here's what I mean. Take the 303 British which has a .312 bullet diameter. See what I mean? There's no way you can match the cartridge caliber with the cartridge figure designation. Here's another example: The 303 Savage uses a .308 bullet. There's no rhyme or reason to this, and with all the inconsistencies involved, many hunters are just plain lost.

### Strange as it Seems

Metallic cartridges were developed hundreds of years after the discovery of gunpowder. Sometime in the late 1800s, the self-contained metallic cartridge came into existence. Smokeless powder arrived close to the end of the nineteenth century. Strange as it may seem, cartridge design wound down around the turn of the century. We have seen a good deal of cartridge modification (wildcatting, so to speak), and there have been many improvements in primers, powders and bullets. Yet, there hasn't been much in the way of new cartridge design over the last 50 years, except possibly the 222 Remington which is not based on another cartridge.

Generally speaking, there are five types of rim classes: rimless, semi-rimmed, rimmed, belted and rebated. The 284 Winchester is the only American rebated rim cartridge I can think of. The rebated rim allows the use of the standard diameter bolt with a larger diameter cartridge.

I think it fair to assume we are basically interested today in high velocity, flat trajectory cartridges. We are build-



ing more and more magnum rifles than ever before. This subject always gets me into hot water as I'm not a solid advocate for magnums, especially for white-tailed deer. I'm not opposed to the magnum shell in either rifle or scattergun makeup; I just feel there has been too much emphasis placed on the bigger shell and that many unsuspecting hunters have been misled into thinking it is the ultimate for white-tail hunting.

If this were actually true, Lewis wouldn't be carrying a Model 700 Remington Mountain Rifle in the 280 caliber for bucks this coming season. My argument is not so much against the magnum cartridge per se, but against the erroneous philosophy credited to it.

Picking the right deer cartridge should always be a matter of individual choice. First, you should start with the type of rifle best suited to your psychological needs. Don't be swayed by the opinions and successes of others. Putting me in a Daytona race car would not guarantee a win even against slower cars; I simply wouldn't know how to drive it. Select the rifle you want—first, last and always. Then check the calibers it is offered in and match the cartridge to your hunting terrain. I would suggest staying away from the 224 high velocity centerfires that are primarily designed for varmint shooting. Start with the 6mm's and go from there. The list of top deer cartridges is a lot longer than you might think.

The 7x57 (7mm Mauser) was mentioned in the beginning of this column. It came to life in 1892 as a military entry and was adopted by the Spanish government. Some even refer to the 7x57 as the Spanish Mauser.

Ballistically, it's a deer cartridge all the way and has an impressive record



**TIM LEWIS zeroes a Ruger No. 1 International chambered for the 243. The extra challenge associated with a single-shot appeals to many hunters.**

as a genuine big game cartridge. Its low recoil makes it particularly attractive in lightweight rifles. Winchester offers a 175-grain load that has a muzzle velocity of 2440 fps and is still hitting 1857 at 200 yards, creating over 1300 foot pounds of kinetic energy at that distance. Remington's 140-grain leaves at 2660 and is over 2200 fps at 200 yards giving almost 1600 foot pounds of energy. That is more than ample to meet the requirement for a deer cartridge.

There's still a lot of 8mm Mausers being carried in Pennsylvania's deer woods, but this cartridge has never received much publicity in this country. It's really a fine deer and black bear cartridge, but it has spent much of its life out of the spotlight. Here is a good time to show a little appreciation for the 8mm Mauser.

The 8mm or 7.92 Mauser was Germany's basic military cartridge in both World Wars. It dates back to about 1888, and began its life with a .318 bullet diameter. In the early 1900s, that was increased to .323 inch. It's still possible to find early ones—which by the way caused problems for handloaders in the 1950s. Back then, the average 8mm user did not know about the difference in bore sizes. Now there is light on the subject, and handloaders know the larger bore carries a JS or just plain S marking.

The 8mm also has a 57mm case length, so is sometimes referred to as the 8 x 57mm. It never generated much enthusiasm with Pennsylvania hunters until after World War II. Many were brought home, and tens of thousands more flooded the marketplace. When I opened a reloading shop in the 1950s, my first three die sets consisted of the 222, 30-30 and 8mm.

Accuracy was never impressive with this cartridge due to a variety of factors. Most of the problems stemmed from inferior bullets. Today, there is a plentiful supply of excellent 323 bullets, and with careful reloading, the 8mm is a top choice for the deer woods.

The 300 Savage, like the 30-30 Winchester, has a long and impressive history. It saw the light of day in 1920, and was designed especially for the Savage Model 99, which also ranks highly as a Pennsylvania big game rifle. The general idea behind the 300 Savage was to design a cartridge that would work in a medium length action and still deliver ballistics similar to the 30-06. Although I can't honestly rank it in the same category with the old '06, I will say it has made a mark for itself with tens of thousands of deer and bear hunters.

The 300 Savage has succumbed to the slightly more powerful 308 Winchester, but the old cartridge did provide the lever and slide action fan with a cartridge legitimately classified in the big game category. It was never an ideal moose or grizzly cartridge, but for whitetails and black bear, it will easily hold its own.

I don't need to say anything about the famous Winchester 270 or the ex-military 30-06. Millions of words of praise have been sung about these two cartridges, and they are worthy of more accolades; they are super big game cartridges.

The aging 30-40 Krag was very popular in the deer woods during the Great Depression. In fact, I often think of the 30-40 as the Depression deer rifle. Young collectors of today can't believe the uncut Krag was on the market for



only a few dollars during the 1920s and '30s. A good Krag could be purchased for \$5 or less, back then.

The Krag was the first U.S. military smallbore military cartridge. It was adopted in 1892. Basically, it remained a military outfit. The cartridge was designed for the Krag-Jorgensen bolt action rifle, and only a few American firms chambered it, including Winchester's lever action Model 95 and high wall single shot, and the Remington-Lee bolt action. In the 1970s, the Ruger No. 3 single shot also was chambered for this load.

I have mentioned many times in gun columns that no other bolt action rifle of the past or present offers the smoothness of the 30-40 Krag. It lacked in cosmetics with its unusual side magazine, and in its original version it was too long to carry in heavy cover, but its bolt was always smooth as velvet. It was close to the 30-06 in power and gave countless out-of-work hunters of those dark years a rifle/cartridge that was fully adequate for deer and black bear.

Winchester's 243 was an instant success when it appeared in 1955, and still has thousands of followers, both for big game and varmint. It is a remarkable cartridge.

It came out in Winchester's Model 70 bolt gun and lever action Model 88, and was quickly adopted by other gun makers. I've explained before that both the Remington 244 (now 6mm) and the Winchester 243 were successful approaches to the problem of designing a combination cartridge for both small and big game. From my own point of view, I have not quite accepted this type of thinking, but the 243 is a whale of a long range varmint cartridge with up to 90-grain bullets and is adequate for deer with bullets from 90 grains up. The combination cartridge eliminates the need for owning two rifles, and at times that is a worthwhile point.

I want to say a word about the Remington 280 which I am banking on to put deer meat on my table this year. It came out in 1957 in the Remington



M740 autoloader and later in the 760 pump gun. It is based on the 30-06 and is slightly longer than the 270 Winchester to prevent accidental chambering.

I loaded a lot of 280 cases back then for slide action users, but the cartridge didn't get a foothold and slid into oblivion. A few years back, Remington renamed it the 7mm Express, and with the use of newer powders did manage to up the ballistics slightly. It gained new converts in the silhouette shooting ranks. Now it's back as the 280 Remington with a new 140-grain loading that should put this fine cartridge in solid with Pennsylvania's big game hunters.

### **Optimum Bullet Weight**

I like the 284 caliber, and the 140-grain bullet has always appealed to me as the optimum bullet weight for the 28 caliber. The new 140-grain PSP bullet's high ballistic coefficient will deliver flatter trajectories than the 270 Winchester out to 500 yards. Remington's ballistics show the heavier bullet will give a 12 to 20 percent increase in downrange energy.

Comparing it with the 150-grain 30-06 load shows the 140-grain provides superior trajectory throughout with a substantial advantage of better than 15 percent greater downrange energy.

The new 280 Remington load could be the whitetail cartridge for the hunter interested in high performance without punishment.

"What's the best deer cartridge?" As much as I would like to help, you alone must answer that question.

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By Betsy Maugans

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## GAME NEWS



## HUNTING

The New Year Birds—	
Paul R. Jukes .....	JAN
Resolved—Tom Hoag .....	JAN
Late-Season Squirrels—	
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Third Time's a Charm—	
Dennis Fike .....	FEB
Three Bunnies Before Brunch—	
George L. Harting .....	FEB
A Game Bag Full of Memories—	
Bernard J. Schmader .....	MAR
Walkers and Foxes—Dave Wayman .....	MAR
In the Eye of the Beholder—	
John D. Taylor .....	APR
Follow that Shot—	
George L. Harting .....	APR
At Last—Success—Bob Ryan .....	MAY
The Ten-Cent Bus Ride—	
Ken Knapp .....	MAY
One On My Own—Richard Tate .....	MAY
Rewards of a Turkey Hunter's Wife—	
Helen Snader .....	MAY
The Careful Hunter—Jim Hayes .....	MAY
More to Huntin' than Shootin'—	
Marion Younkin .....	JUL
Rabbits Are Where You Find Them—	
Dave Fisher .....	JUL
The Day We Found a "Flight" of	
Woodchucks—Nick Sisley .....	JUL
Birth of a Grouse Hunter—	
Robert Evans .....	JUL
Lessons in the Squirrel Woods—	
Marion Younkin .....	AUG
The Hunter's Primary Tool—	
George H. Block .....	AUG
Musings of a Grouse Hunter—	
Albert Shimmel .....	SEP
The Ability to Shoot—	
George H. Block .....	SEP
Oh, How I Miss Hunting in Pennsylvania—	
Captain A. M. Vargeso .....	SEP
In Praise of Doves—	
Jim Bashline .....	SEP
Gunning for Ducks on Presque Isle Bay—	
Kenneth Young .....	OCT
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Leland R. Moran .....	OCT
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Don Feigert .....	OCT
The Great Pocono Mountain Turkey Shoot—	
Calvin J. Klein .....	OCT
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Three Bears Before Noon—	
PJ Bell .....	NOV
November's Feathers . . . a Mixed Delight—	
Rick Drury .....	NOV
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Marlin Foster .....	NOV
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My Orthoscopic Knee Buck—	
Dr. John Oshetski .....	DEC
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My Rainy-Day Buck—	
R. Dean Clark .....	DEC

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Ken Wolgemuth .....	JUN
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Ken Wolgemuth .....	AUG
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Decoys—Marie G. Bongiovanni .....	AUG
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National Title .....	DEC

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Let's Plant Chestnuts—Charles Rupert	
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Protecting Our Birds of Prey, Legally—	
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## THORNAPPLES

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## TRAPPING

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Reflections on the Beavers Pond —	
Joe Kosack .....	SEP

# *In the wind*

bob mitchell



Following a joint undercover investigation by the Michigan Department of Natural Resources and the U.S. Fish and Wildlife Service, a total of \$22,933 in federal fines, court costs and restitution, 165 days in jail sentences, and the loss of hunting and trapping privileges were handed down against 24 defendants for illegally trapping and selling furbearing animals. During the investigation, undercover officers purchased over \$400,000 worth of illegal furs.

The Federal Migratory Bird Conservation Commission has approved the purchase of 2600 acres of forested bottomland in Arkansas along the Cache River, home to 400,000 wintering mallards and 35,000 nesting wood ducks. This acquisition will be made under the Wetlands Loan Act, an advance on federal duck stamp revenues, and it will become the 434th National Wildlife Refuge.

The Idaho Department of Fish and Game conducted a telephone survey of the state's sportsmen to learn how they perceive the agency's officers. More than 3300 people were contacted. Of those who had talked to an agency employee, 90 percent had a favorable impression, 7 percent were neutral, and 3 percent had a negative reaction.

According to the Nationwide Recreation Survey, published by the National Park Service, hunting is the sport participants most enjoy, topping 26 other sports mentioned. Those surveyed were asked not just which sports they participated in, but also which they "particularly enjoyed." Seventy-five percent of the hunters indicated they particularly enjoyed that sport. Percentages of participants who particularly enjoyed other sports are: hiking, 37; bicycling, 30; jogging, 19; swimming, 18; and boating, 16.

According to the National Wildlife Federation, the Supreme Court ruled this past summer that the Bald and Golden Eagle Protection Act supersedes Indian treaty rights. The decision was made after a federal court of appeals overturned the conviction of an Indian who had been found guilty of killing four bald eagles on a reservation and selling their remains.

**Of the 31,095 hunters who went afield during the 1985 firearms deer season in Kansas, 21,596 bagged a deer, a 69.5 percent success rate. Of the total, 10,050 were antlered deer.**





*Country Lane Kestrel*, by Bob Sopheick, is the fourth limited edition fine art print – and the first selected from a contest open to Pennsylvania wildlife artists – available through the Working Together for Wildlife program. As with the previous editions, *Country Lane Kestrel* is limited to 600 signed and numbered prints. Image size is approximately 15 x 22½ inches, printed on acid-free 100 percent rag paper. Price is \$125; framed prints are an additional \$97.50. Requests for specific numbers will be satisfied on a first-come first-served basis. Orders should be sent to the Pennsylvania Game Commission, Dept. AR, P.O. Box 1567, Harrisburg, PA 17105-1567.

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